APPENDIX B. ECM RESULTS AT OBSERVATION STATIONS

All figures and tables related to the results of the Lee County Existing Condition Model (ECM) at observation station locations are presented in this appendix. The appendix was divided in six sections according to the station type and location, as shown in Table B1.

	Location		
Station type	DR/GR Area	Other south from Caloosahatchee river	North from Caloosahatchee river
Surface water	B2		B5
Groundwater wells (layers 1 and 2)	B1	B4	B6
Ground water wells (layer 3)	B3		

Table B1. Station type and location covered in each section of the appendix.

After calibration, the model showed the most improvement for the shallow observation wells in the DR/GR Area (Table B2). At the end, 45 of 56 stations fell within the high quality performance range and the other 11 stations in the mid-level range. For surface water stations (Table B3) and other wells (Table B4 and B5) south from the Caloosahatchee River, the model performance was improved in a few stations. In particular, the performance at deep wells in the DR/GR Area is still low in most of the cases. Almost no attention was dedicated to improving the model performance at stations located north of Caloosahatchee River (Table B6 and B7).

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List of symbols

GSE: ground surface elevation (topography) in model grid cell;
MAE: mean absolute error;
ME: mean error;
PL: average performance level, which is a number in the range from 1.0 (high) to 3.0 (low);
R: Correlation coefficient;
RMSE: root mean square error.

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Appendix B1. Shallow groundwater wells in DR/GR Area

		before refinement					after refinement				
Station Name	Comp. layer	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
40-GW3	1	-2.08	2.10	2.36	0.72	**2.3**	-0.88	1.01	1.15	0.83	**1.3**
46A-GW18	1	-2.63	2.63	2.88	0.39	**3.0**	-1.12	1.23	1.43	0.79	**1.8**
49-GW3	1	-0.42	0.63	0.83	0.43	**1.5**	0.16	1.01	1.28	0.42	**2.0**
49-GW6	1	0.65	0.96	1.28	0.74	**1.3**	0.43	1.12	1.38	0.75	**1.5**
49-GW7	1	-0.91	1.59	1.84	0.40	**2.0**	0.42	0.91	1.34	0.56	**1.5**
49-GW8	1	1.82	1.82	2.19	0.18	**2.3**	1.94	1.94	2.33	0.23	**2.3**
49-GW9	1	1.52	1.58	1.81	0.78	**1.8**	1.51	1.53	1.80	0.81	**1.8**
49-GW10	1	-0.20	0.93	1.08	0.84	**1.0**	-0.14	0.83	0.98	0.85	**1.0**
49-GW11	1	0.48	0.95	1.26	0.88	**1.3**	0.33	0.83	1.16	0.89	**1.0**
BRM-Lake	1	---	---	---	---	---	-0.02	0.42	0.53	0.94	**1.0**
BRM-MW1	1	---	---	---	---	---	0.31	0.60	0.72	0.77	**1.0**
BRM-MW2	1	---	---	---	---	---	-0.01	0.35	0.44	0.93	**1.0**
BRM-MW3	1	---	---	---	---	---	0.57	0.60	0.77	0.90	**1.0**
BRM-MW4	1	---	---	---	---	---	0.48	0.54	0.73	0.84	**1.0**
Corkscrew Swamp	1	-0.99	1.15	1.23	0.87	**1.3**	-0.61	1.01	1.06	0.87	**1.3**
FP2_GW1	1	-2.82	2.82	3.09	0.81	**2.5**	0.35	1.15	1.55	0.78	**1.5**
FP3_GW1	1	-0.05	0.40	0.53	0.93	**1.0**	0.31	0.65	0.80	0.83	**1.0**
FP4_GW1	1	-0.58	0.70	0.84	0.90	**1.0**	-0.09	0.53	0.65	0.89	**1.0**
FP5_GW1	1	-0.68	0.80	0.97	0.89	**1.0**	-0.21	0.57	0.74	0.88	**1.0**
FP6_GW1	1	-0.61	0.83	1.00	0.88	**1.0**	-0.27	0.77	0.97	0.86	**1.0**
FP7_GW1	1	-0.48	0.78	0.93	0.89	**1.0**	-0.22	0.83	1.03	0.86	**1.0**
FP8_GW1	1	-0.40	0.71	0.87	0.89	**1.0**	-0.07	0.70	0.84	0.87	**1.0**
FP9_G	1	-0.49	0.78	0.94	0.88	**1.0**	-0.19	0.82	1.01	0.85	**1.0**
FP10_G	1	-0.69	0.82	1.01	0.87	**1.0**	-0.21	0.57	0.77	0.87	**1.0**
L-1138	1	0.50	0.57	0.68	0.84	**1.0**	-0.56	0.92	1.10	0.80	**1.0**
L-1985	2	-2.96	3.29	3.90	0.66	**2.8**	-0.59	2.12	2.49	0.72	**1.8**
L-2204	2	-1.05	1.06	1.21	0.84	**1.5**	-0.46	0.56	0.73	0.86	**1.0**
L-5667	1	0.77	0.95	1.05	0.93	**1.0**	1.26	1.44	1.56	0.92	**1.8**
L-730	2	1.45	1.45	1.53	0.85	**1.8**	0.37	0.56	0.78	0.77	**1.0**
L-739	2	0.88	0.89	1.05	0.89	**1.0**	0.57	0.60	0.74	0.96	**1.0**
MPW02	1	---	---	---	---	---	-0.62	0.62	0.71	0.98	**1.0**
MPW03	1	---	---	---	---	---	-0.96	0.96	0.97	0.98	**1.0**
MPW04	1	---	---	---	---	---	-0.05	0.54	0.67	0.91	**1.0**
MPW05	1	---	---	---	---	---	0.27	0.56	0.61	0.73	**1.0**
MPW08	1	---	---	---	---	---	0.99	0.99	1.10	0.91	**1.0**
MPW25	1	---	---	---	---	---	-0.12	0.27	0.31	0.95	**1.0**
MPW27	1	---	---	---	---	---	0.69	0.71	1.04	0.80	**1.0**
MPW28	1	---	---	---	---	---	1.16	1.16	1.23	0.51	**1.8**
MPW29	1	---	---	---	---	---	-0.09	0.41	0.53	0.84	**1.0**
MPW30	1	---	---	---	---	---	0.39	0.59	0.97	0.73	**1.0**

		before refinement					after refinement				
Station Name	Comp. layer	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
MPW31	1	---	---	---	---	---	0.38	0.39	0.59	0.94	**1.0**
MPW33	1	---	---	---	---	---	-0.55	1.18	1.48	0.70	**1.8**
MPW34	1	---	---	---	---	---	0.62	0.62	0.63	0.98	**1.0**
MPW35	1	---	---	---	---	---	-1.10	1.26	1.36	0.84	**1.8**
MPW36	1	---	---	---	---	---	0.08	0.61	0.74	0.84	**1.0**
MPW39	1	---	---	---	---	---	-1.52	2.20	2.46	0.66	**2.3**
ST1_G	1	-0.77	0.92	1.04	0.86	**1.0**	-0.26	0.61	0.73	0.87	**1.0**
ST2_G	1	-0.12	0.60	0.68	0.87	**1.0**	0.34	0.66	0.80	0.86	**1.0**
ST3_G	1	-0.48	0.81	0.92	0.81	**1.0**	-0.20	0.75	0.86	0.81	**1.0**
WF1_G	2	1.67	1.67	1.68	0.94	**1.8**	0.68	0.69	0.75	0.95	**1.0**
WF2_G	2	1.85	1.85	2.11	0.63	**2.0**	1.13	1.29	1.61	0.76	**1.8**
WF3_G	1	2.33	2.33	2.43	0.85	**2.3**	1.38	1.38	1.59	0.84	**1.8**
WF4_G	1	2.06	2.06	2.16	0.84	**2.3**	0.91	1.06	1.28	0.81	**1.5**
WF5_G	1	2.58	2.58	2.67	0.78	**2.5**	0.97	1.11	1.43	0.79	**1.5**
WF6_G	1	2.83	2.83	2.92	0.78	**2.5**	0.99	1.04	1.32	0.83	**1.5**
WF7_G	1	2.80	2.80	2.89	0.79	**2.5**	1.14	1.20	1.53	0.79	**1.8**

Table B2. Statistical parameters and level of performance at groundwater shallow monitoring wells (in computational layers 1 and 2) in the DR/GR Area. The green color is used for the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

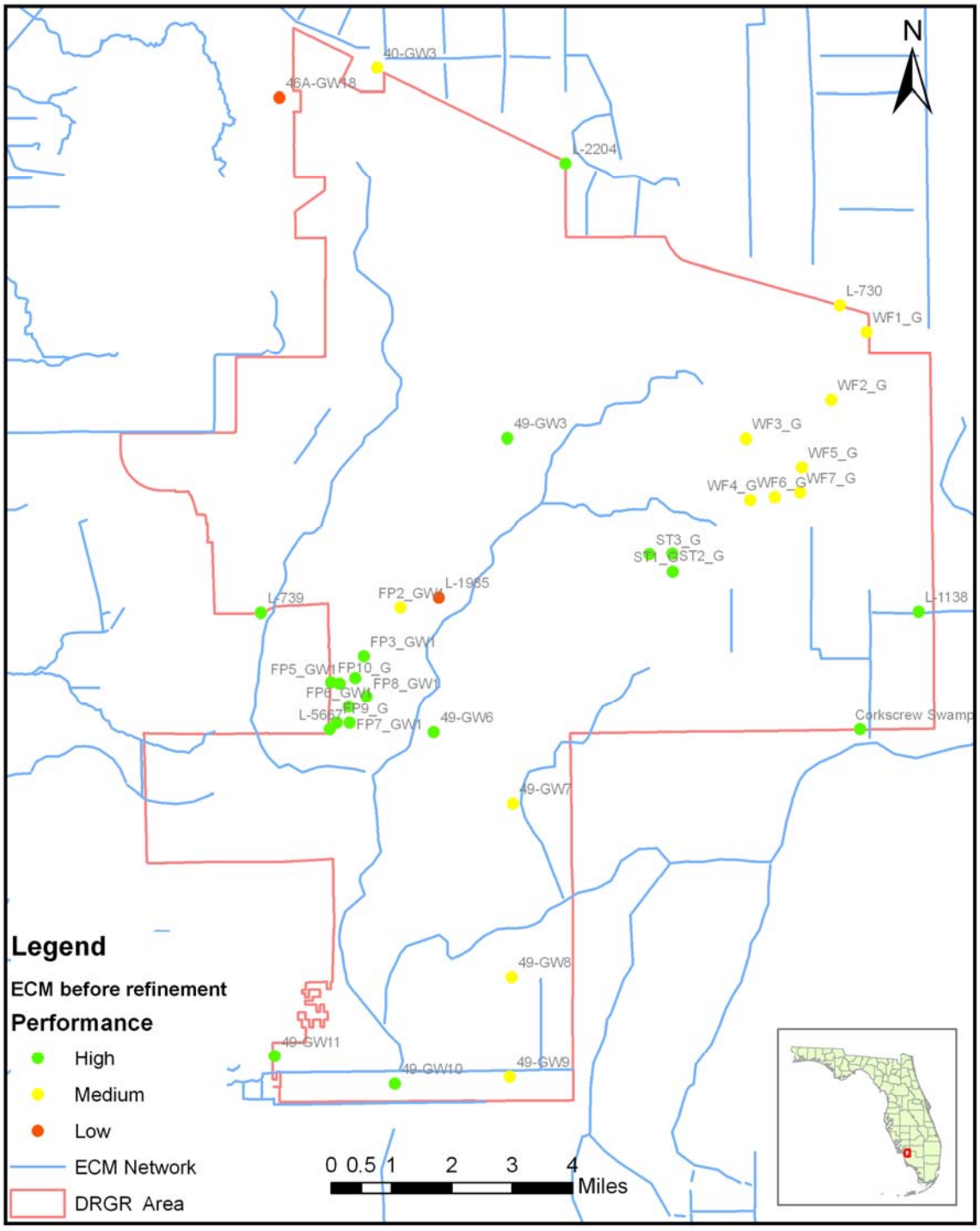


Figure B1. Average performance level at shallow groundwater monitoring wells in the DR/GR Area, before the refinement process.

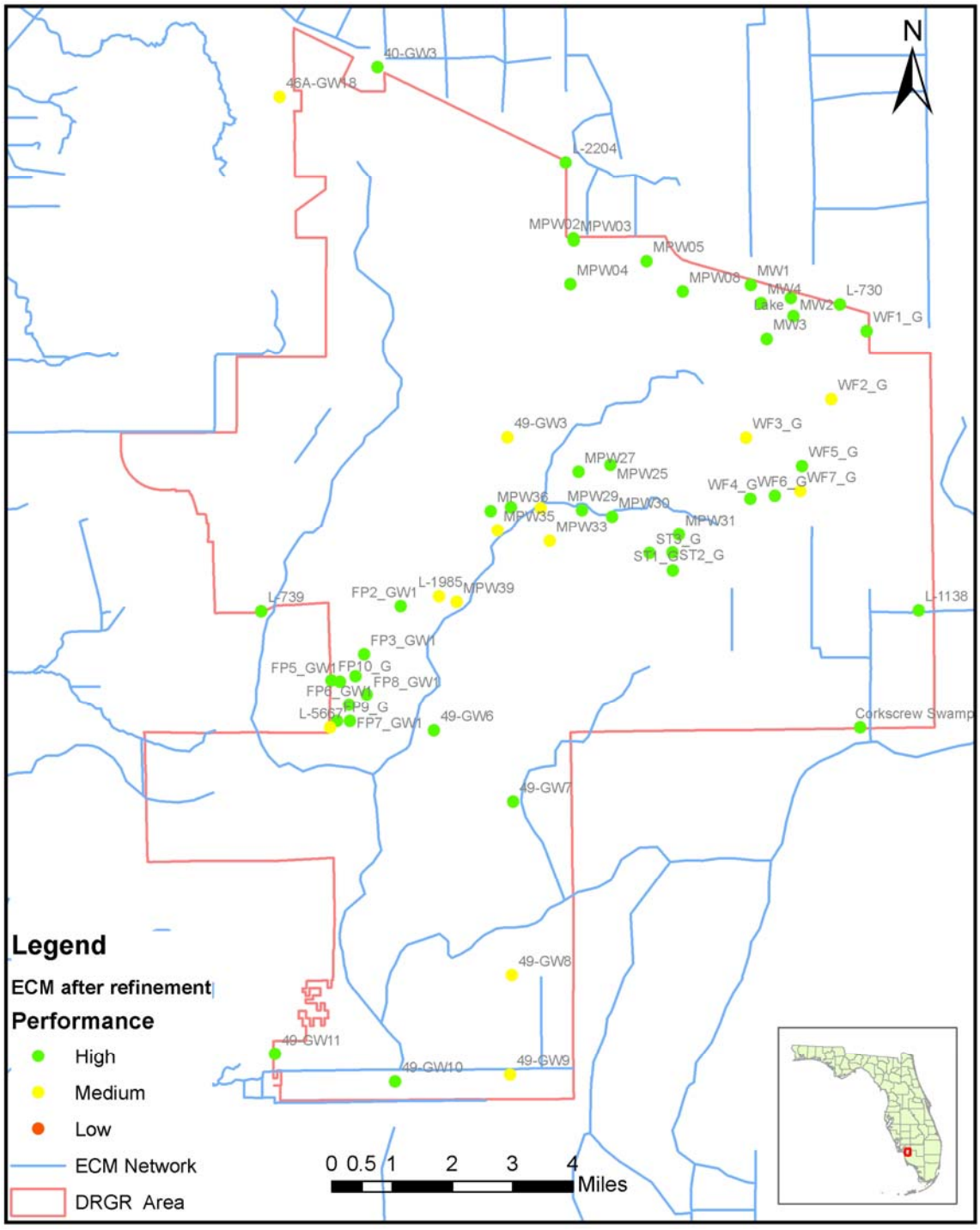
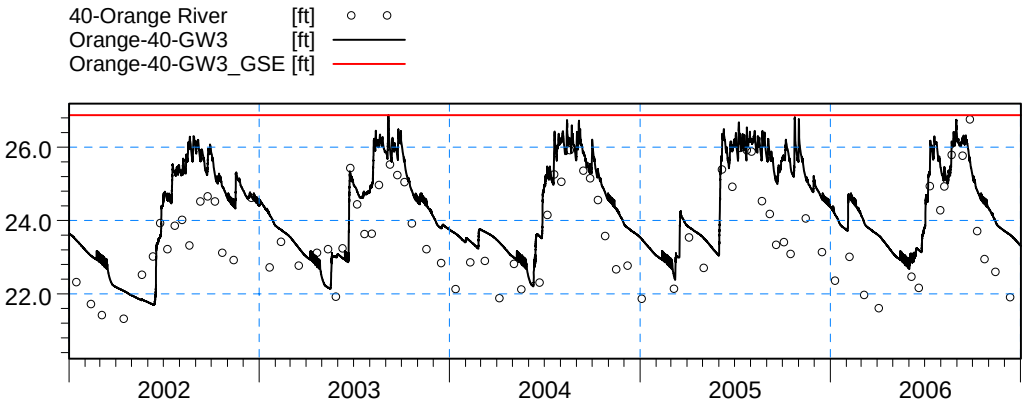
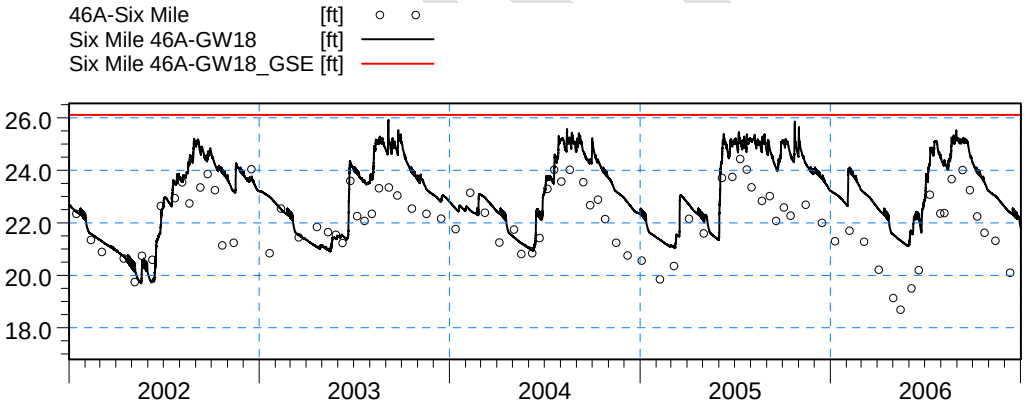


Figure B2. Average performance level at shallow groundwater monitoring wells in the DR/GR Area, after the refinement process.

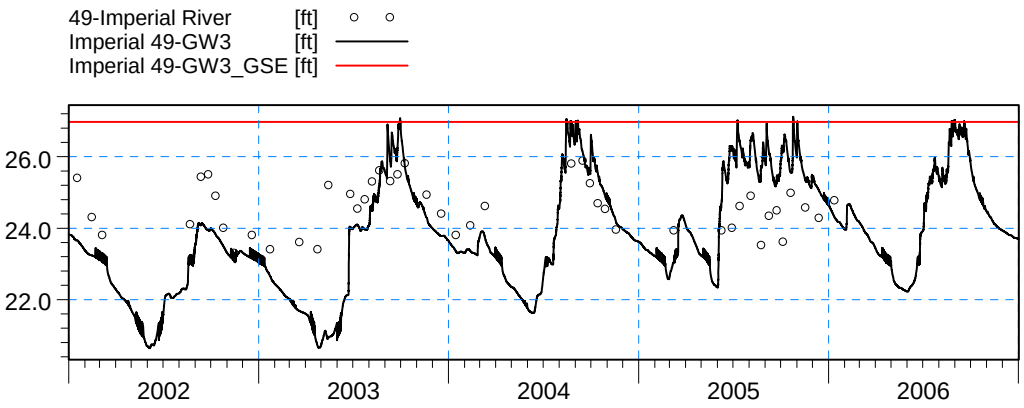


ME=-0.882999
MAE=1.00713
RMSE=1.15321
STDres=0.741757
R(Correlation)=0.825504
R2(Nash_Sutcliffe)=0.196999

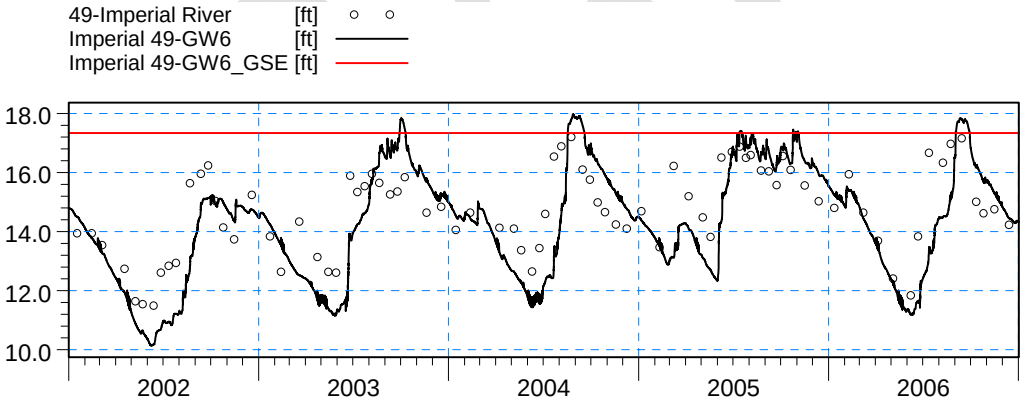


ME=-1.11599
MAE=1.22886
RMSE=1.42609
STDres=0.887872
R(Correlation)=0.787101
R2(Nash_Sutcliffe)=-0.266401

Figure B3. Groundwater elevation at wells 40-GW3 and 46A-GW18, after refinement.

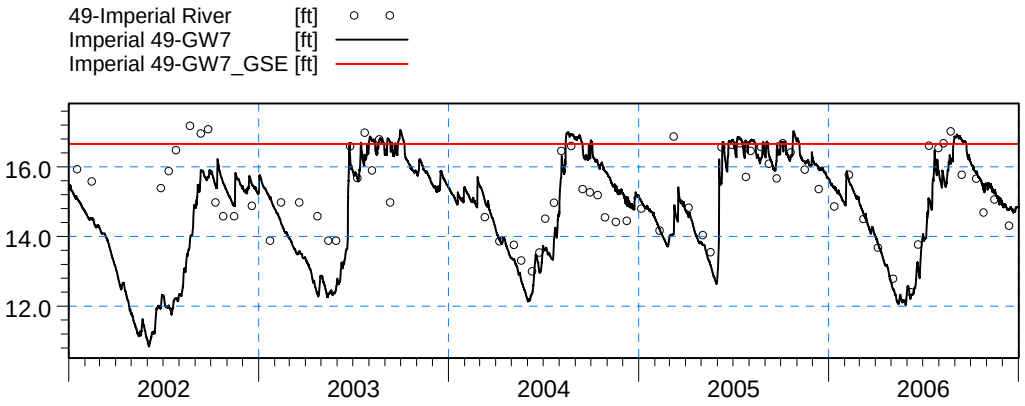


ME=0.156326
MAE=1.01293
RMSE=1.2819
STDres=1.27234
R(Correlation)=0.421983
R2(Nash_Sutcliffe)=-2.18317

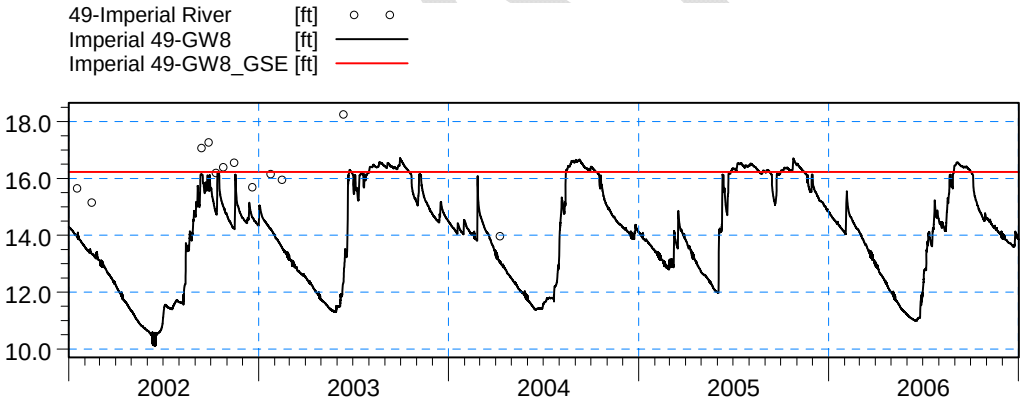


ME=0.432074
MAE=1.12157
RMSE=1.38237
STDres=1.31311
R(Correlation)=0.749251
R2(Nash_Sutcliffe)=0.0340635

Figure B4. Groundwater elevation at wells 49-GW3 and 49-GW6, after refinement.

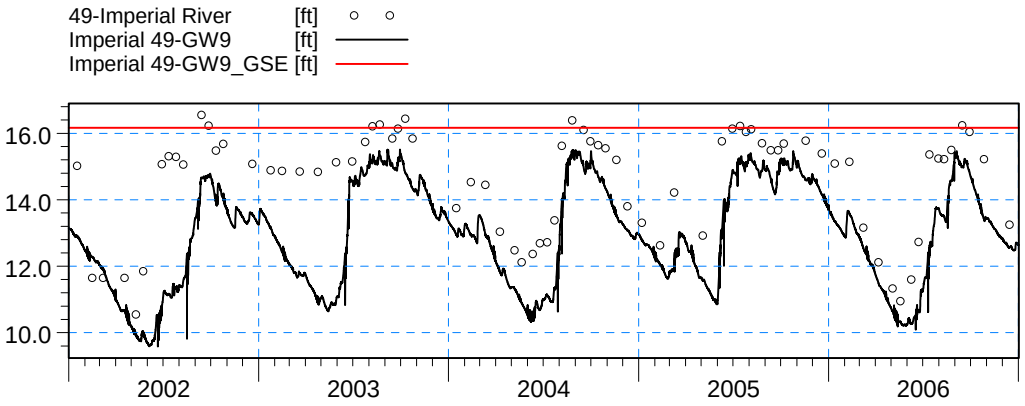


ME=0.415767
MAE=0.908725
RMSE=1.34047
STDres=1.27436
R(Correlation)=0.559766
R2(Nash_Sutcliffe)=-0.222682

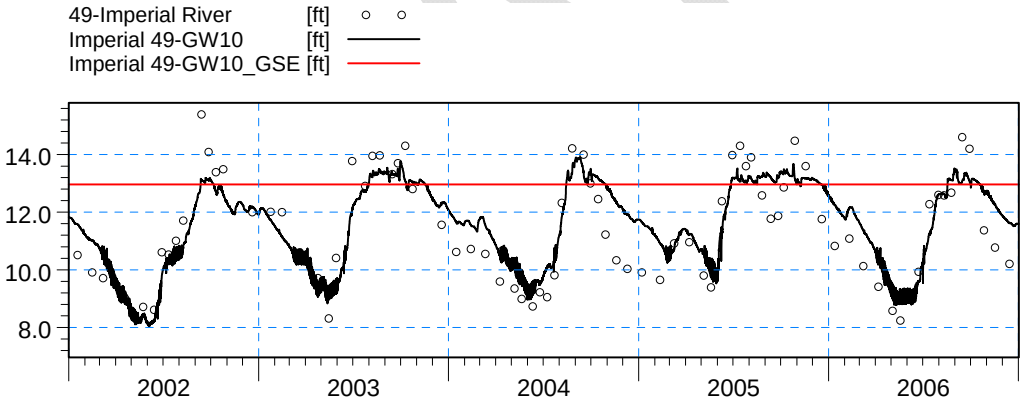


ME=1.94501
MAE=1.94501
RMSE=2.33323
STDres=1.28876
R(Correlation)=0.231718
R2(Nash_Sutcliffe)=-4.03885

Figure B5. Groundwater elevation at wells 49-GW7 and 49-GW8, after refinement.

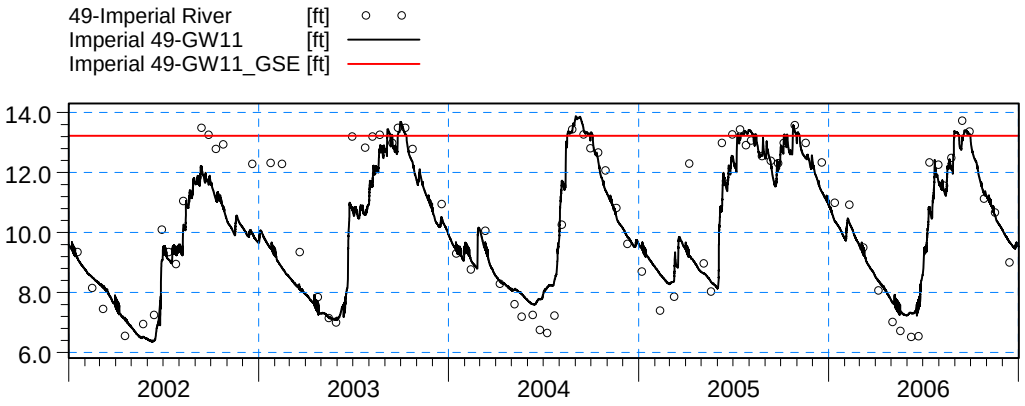


ME=1.51302
MAE=1.53448
RMSE=1.79901
STDres=0.973238
R(Correlation)=0.811727
R2(Nash_Sutcliffe)=-0.332736

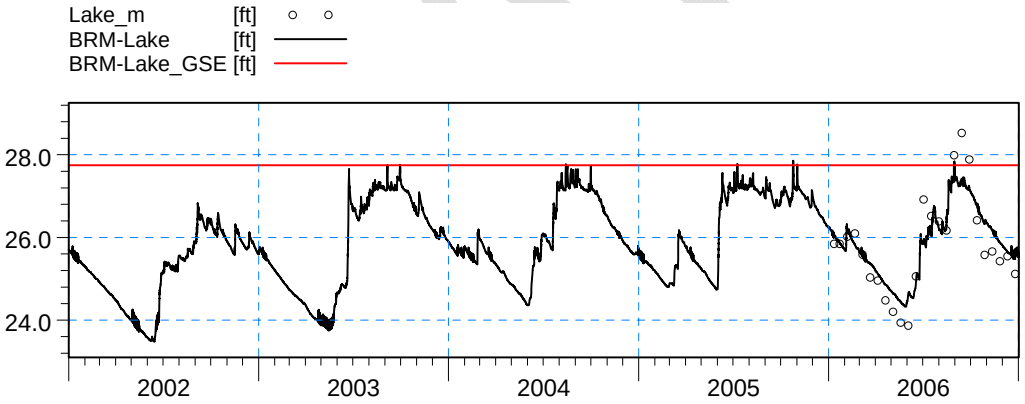


ME=-0.135565
MAE=0.832758
RMSE=0.982454
STDres=0.973056
R(Correlation)=0.847408
R2(Nash_Sutcliffe)=0.709231

Figure B6. Groundwater elevation at wells 49-GW9 and 49-GW10, after refinement.

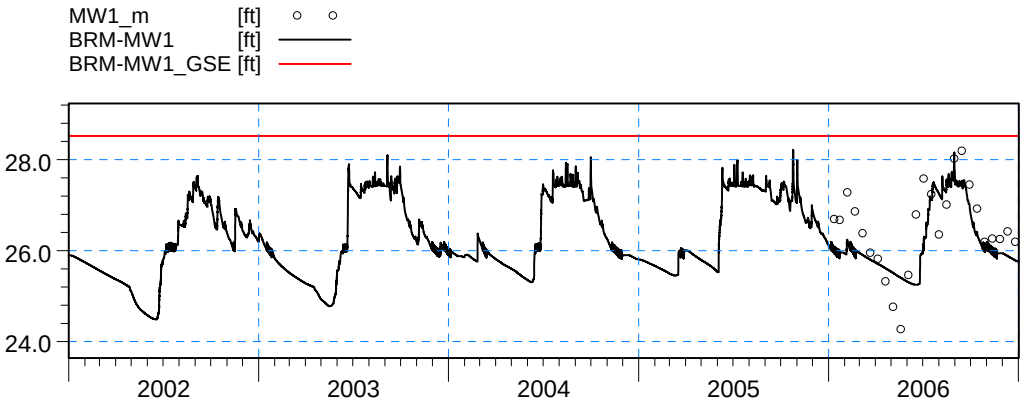


ME=0.326324
MAE=0.834825
RMSE=1.15569
STDres=1.10866
R(Correlation)=0.889969
R2(Nash_Sutcliffe)=0.771055

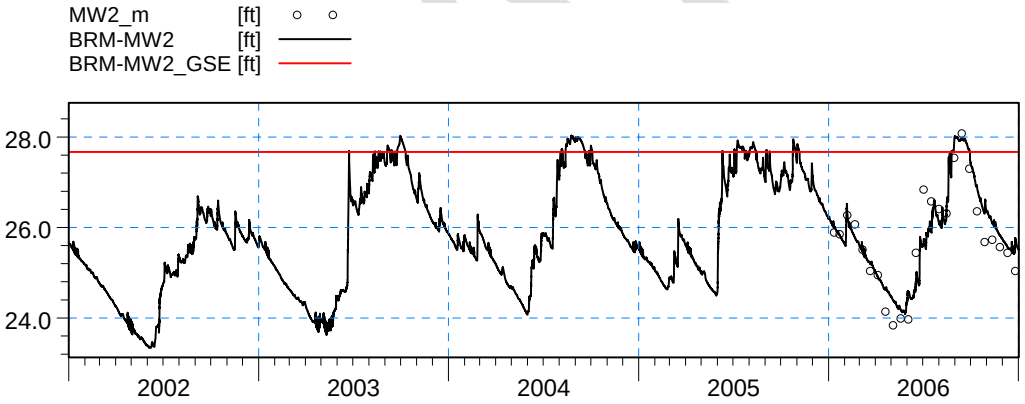


ME=-0.02152
MAE=0.415371
RMSE=0.533442
STDres=0.533008
R(Correlation)=0.936396
R2(Nash_Sutcliffe)=0.811934

Figure B7. Groundwater elevation at wells 49-GW11 and BRM-Lake, after refinement.

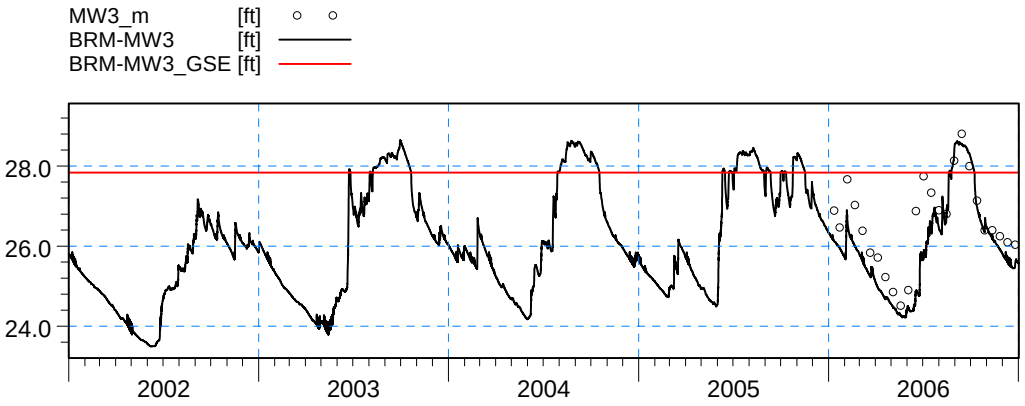


ME=0.314318
MAE=0.602899
RMSE=0.718454
STDres=0.64605
R(Correlation)=0.769583
R2(Nash_Sutcliffe)=0.489926

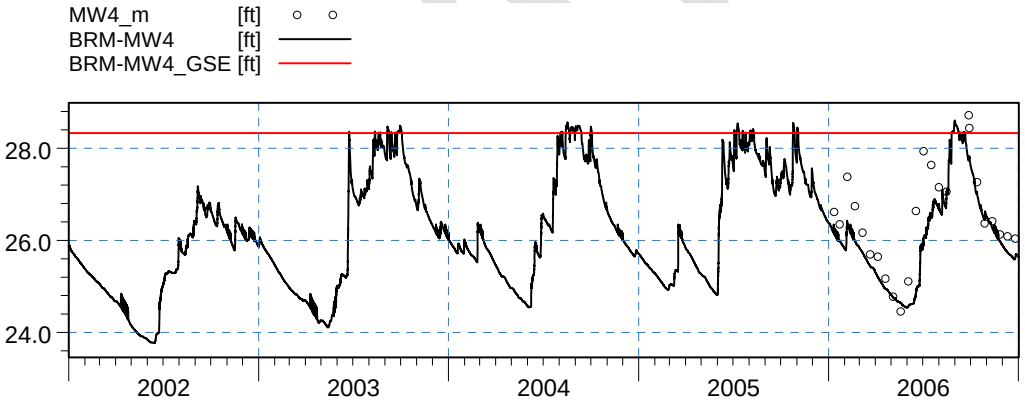


ME=-0.00685231
MAE=0.345035
RMSE=0.439959
STDres=0.439906
R(Correlation)=0.926876
R2(Nash_Sutcliffe)=0.85724

Figure B8. Groundwater elevation at wells BRM-MW1 and BRM-MW2, after refinement.

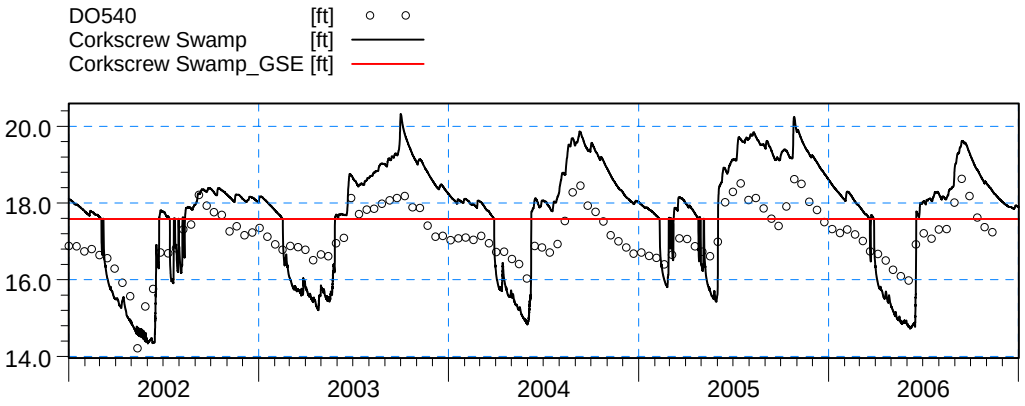


ME=0.574483
MAE=0.604515
RMSE=0.76845
STDres=0.510378
R(Correlation)=0.904723
R2(Nash_Sutcliffe)=0.542656

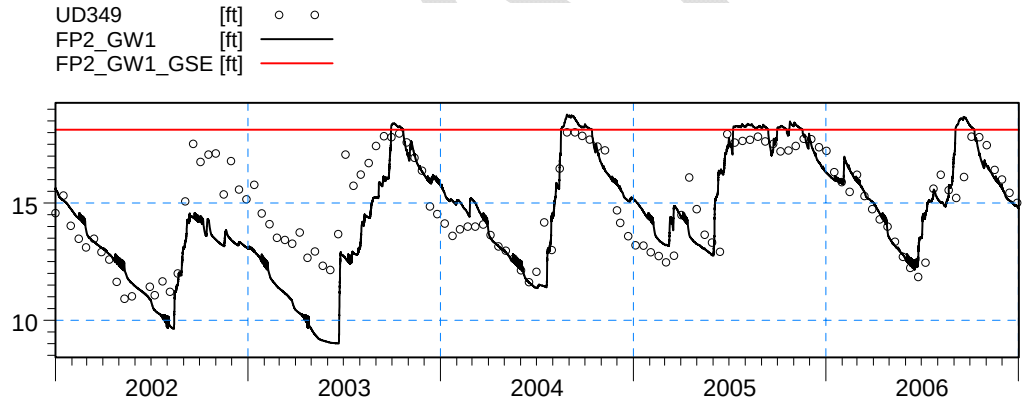


ME=0.484572
MAE=0.536979
RMSE=0.72577
STDres=0.540307
R(Correlation)=0.842338
R2(Nash_Sutcliffe)=0.47589

Figure B9. Groundwater elevation at wells BRM-MW3 and BRM-MW4, after refinement.

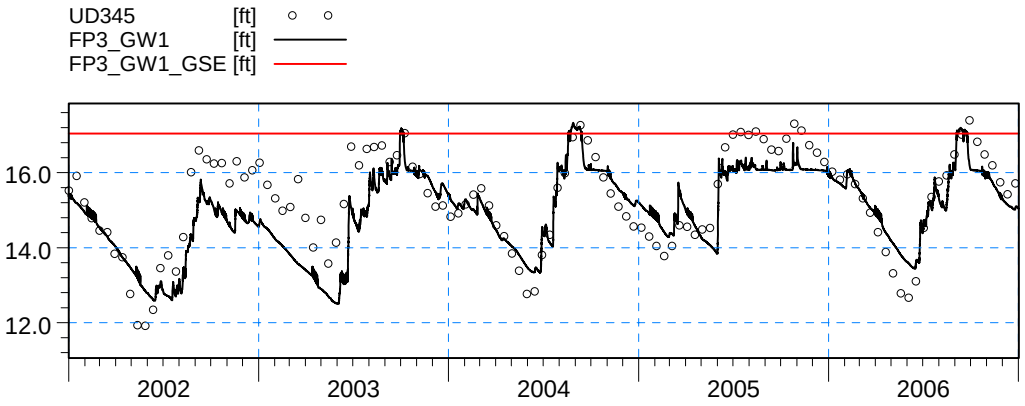


ME=-0.607599
MAE=1.00856
RMSE=1.06409
STDres=0.873567
R(Correlation)=0.867188
R2(Nash_Sutcliffe)=-1.26501

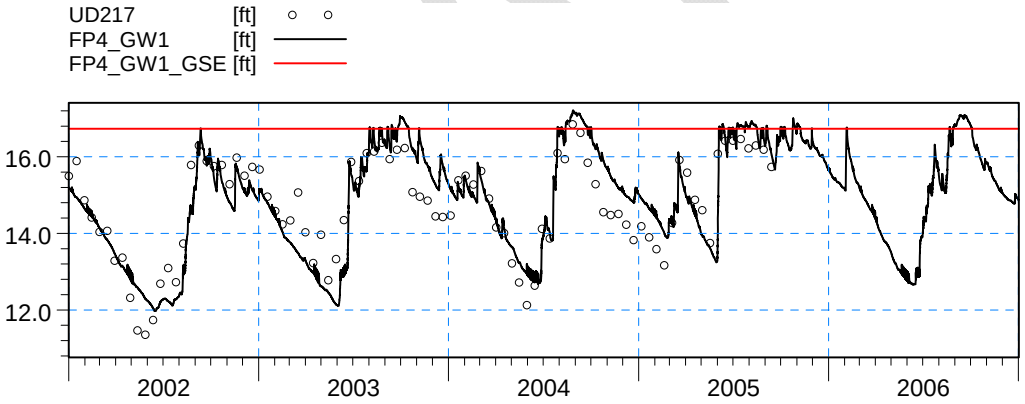


ME=0.350261
MAE=1.15321
RMSE=1.55363
STDres=1.51363
R(Correlation)=0.782465
R2(Nash_Sutcliffe)=0.435124

Figure B10. Groundwater elevation at wells Corkscrew Swamp and FP2_GW1, after refinement.

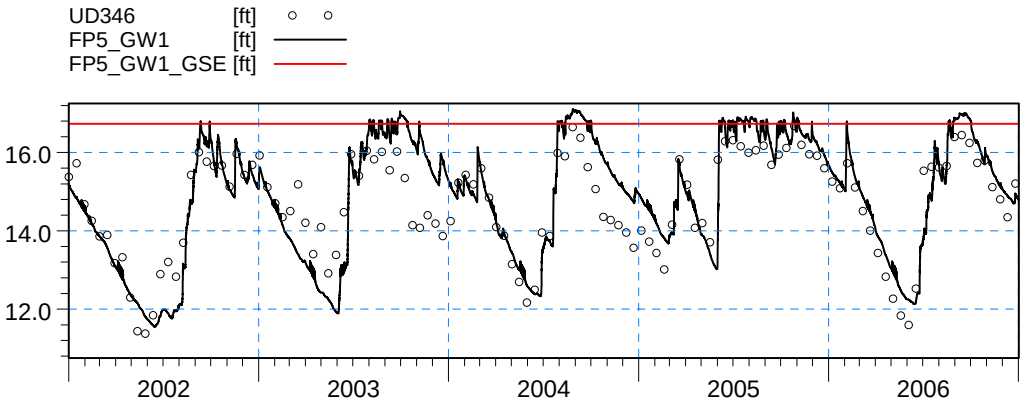


ME=0.314752
MAE=0.645675
RMSE=0.801417
STDres=0.737021
R(Correlation)=0.825437
R2(Nash_Sutcliffe)=0.623202

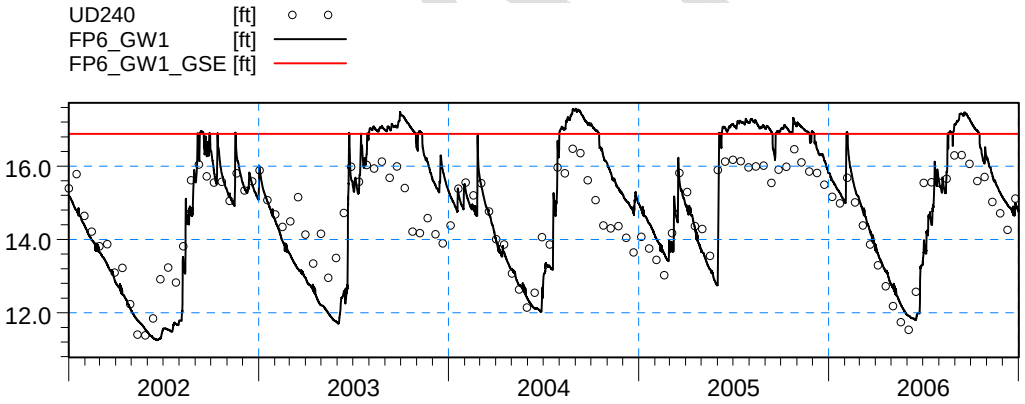


ME=-0.0857351
MAE=0.528962
RMSE=0.653072
STDres=0.64742
R(Correlation)=0.8877
R2(Nash_Sutcliffe)=0.754508

Figure B11. Groundwater elevation at wells FP3_GW1 and FP4_GW1, after refinement.

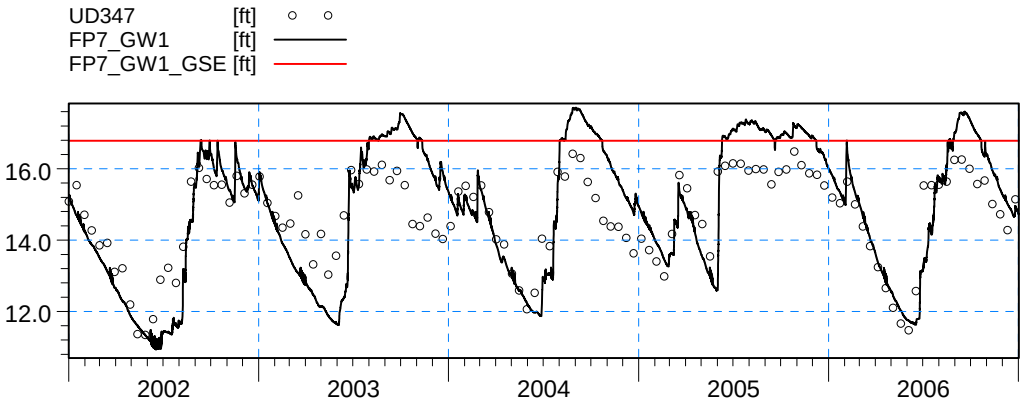


ME=-0.2072
MAE=0.570143
RMSE=0.737981
STDres=0.708296
R(Correlation)=0.883512
R2(Nash_Sutcliffe)=0.678304

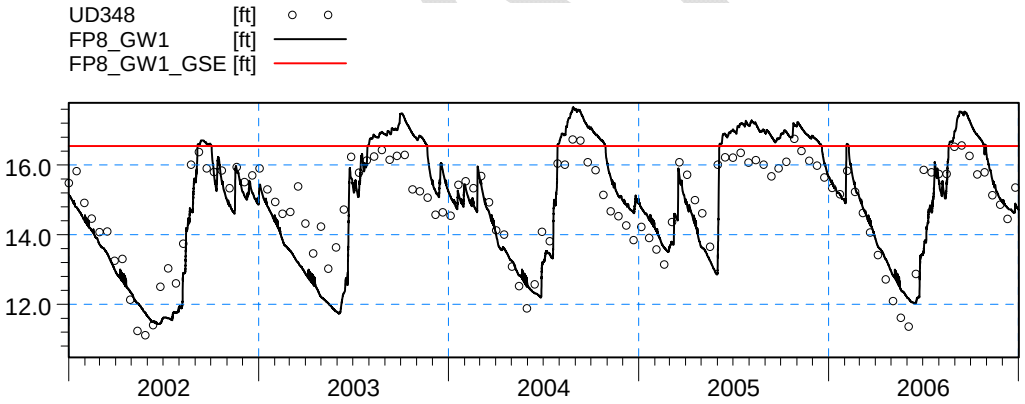


ME=-0.271415
MAE=0.769687
RMSE=0.969754
STDres=0.930997
R(Correlation)=0.863877
R2(Nash_Sutcliffe)=0.433794

Figure B12. Groundwater elevation at wells FP5_GW1 and FP6_GW1, after refinement.

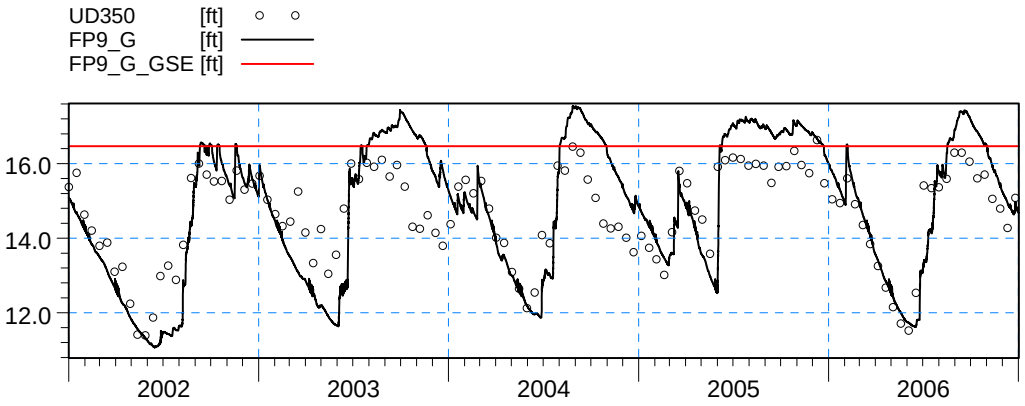


ME=-0.216707
MAE=0.834901
RMSE=1.02553
STDres=1.00238
R(Correlation)=0.858039
R2(Nash_Sutcliffe)=0.369256

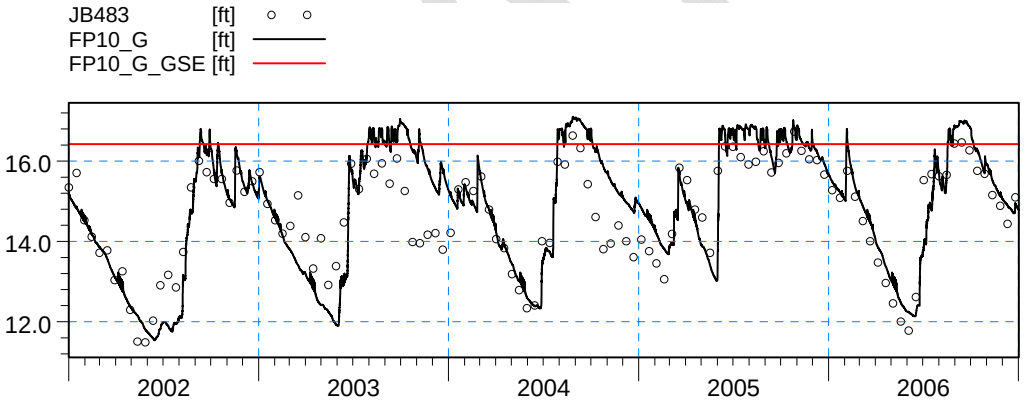


ME=-0.0696309
MAE=0.697097
RMSE=0.843654
STDres=0.840776
R(Correlation)=0.873601
R2(Nash_Sutcliffe)=0.634564

Figure B13. Groundwater elevation at wells FP7_GW1 and FP8_GW1, after refinement.

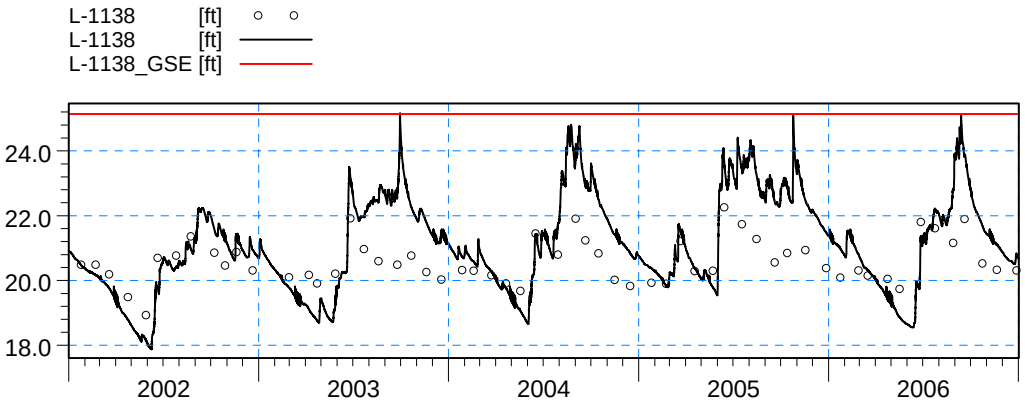


ME=-0.186806
MAE=0.815898
RMSE=1.00988
STDres=0.992448
R(Correlation)=0.85299
R2(Nash_Sutcliffe)=0.374568

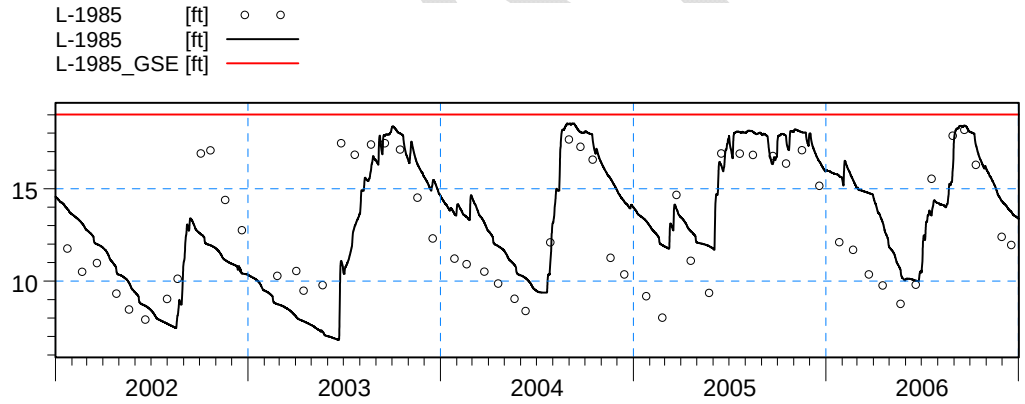


ME=-0.214229
MAE=0.57419
RMSE=0.765869
STDres=0.735297
R(Correlation)=0.873809
R2(Nash_Sutcliffe)=0.644985

Figure B14. Groundwater elevation at wells FP9_G and FP10_G, after refinement.

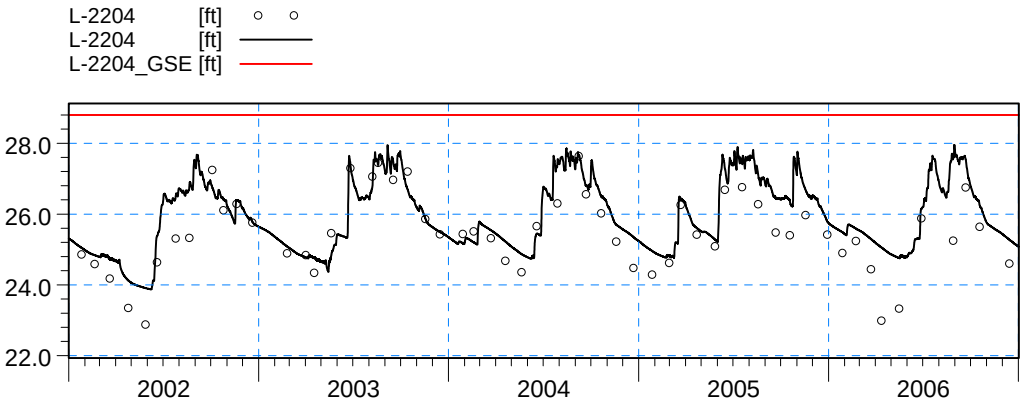


ME=-0.55937
MAE=0.919305
RMSE=1.09778
STDres=0.944581
R(Correlation)=0.801927
R2(Nash_Sutcliffe)=-1.67891

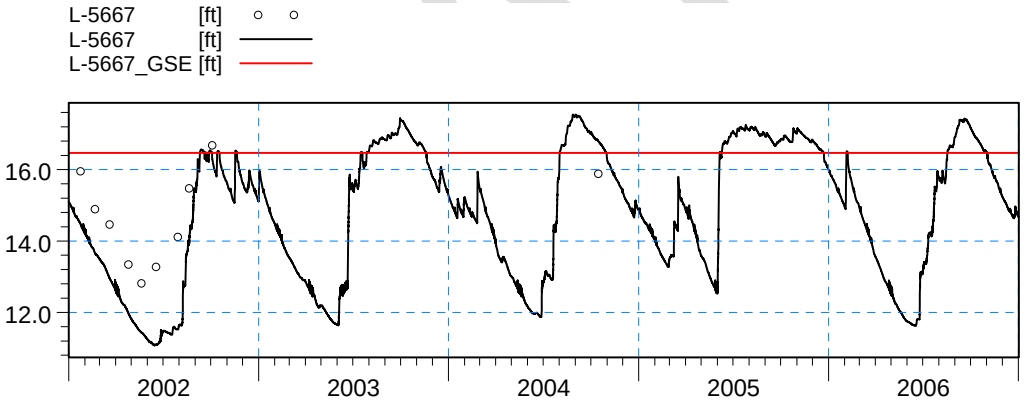


ME=-0.594337
MAE=2.12044
RMSE=2.49448
STDres=2.42265
R(Correlation)=0.723383
R2(Nash_Sutcliffe)=0.435711

Figure B15. Groundwater elevation at wells L-1138 and L-1985, after refinement.

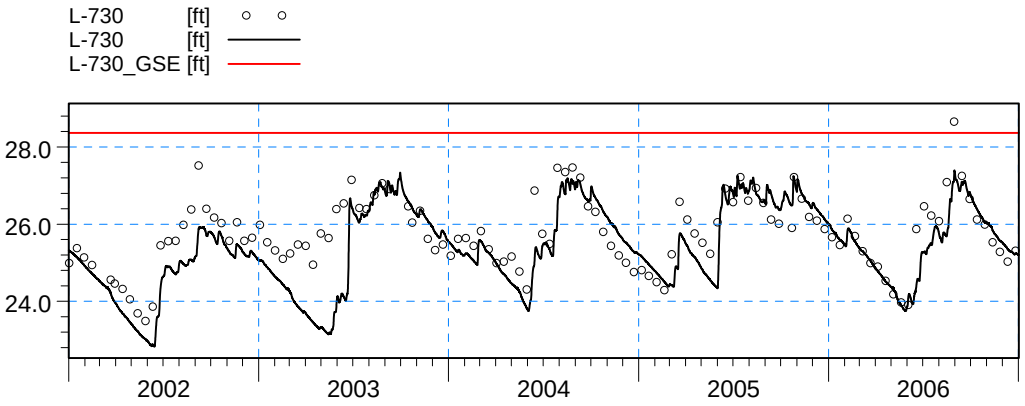


ME=-0.460614
MAE=0.55978
RMSE=0.728412
STDres=0.564287
R(Correlation)=0.856813
R2(Nash_Sutcliffe)=0.554528

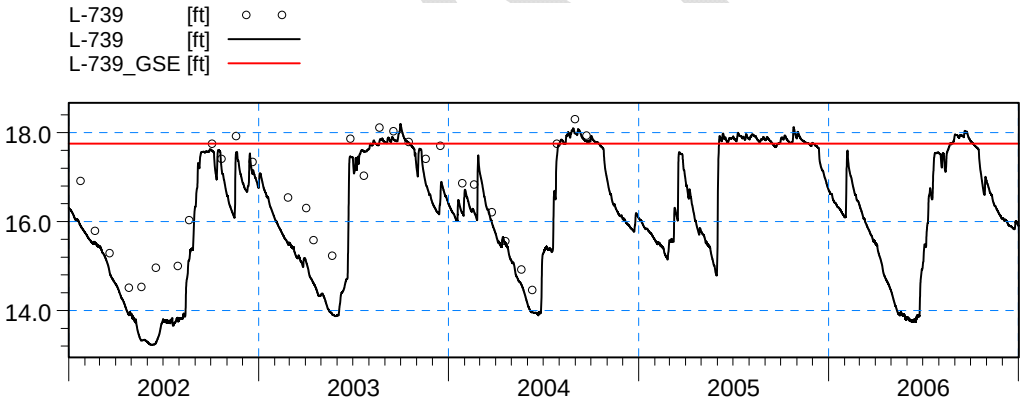


ME=1.26021
MAE=1.44235
RMSE=1.56118
STDres=0.921488
R(Correlation)=0.920334
R2(Nash_Sutcliffe)=-0.58526

Figure B16. Groundwater elevation at wells L-2204 and L-5667, after refinement.

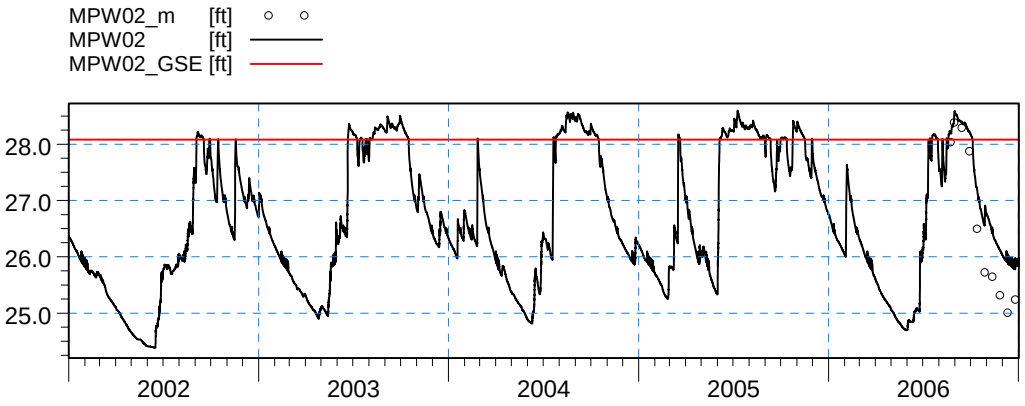


ME=0.367796
MAE=0.563437
RMSE=0.776566
STDres=0.683945
R(Correlation)=0.767955
R2(Nash_Sutcliffe)=0.308446

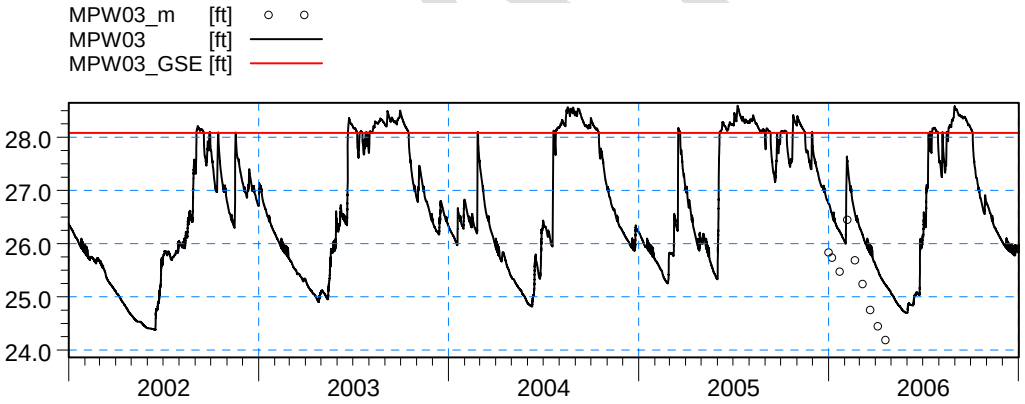


ME=0.569448
MAE=0.603136
RMSE=0.743453
STDres=0.477966
R(Correlation)=0.958444
R2(Nash_Sutcliffe)=0.631785

Figure B17. Groundwater elevation at wells L-730 and L-739, after refinement.

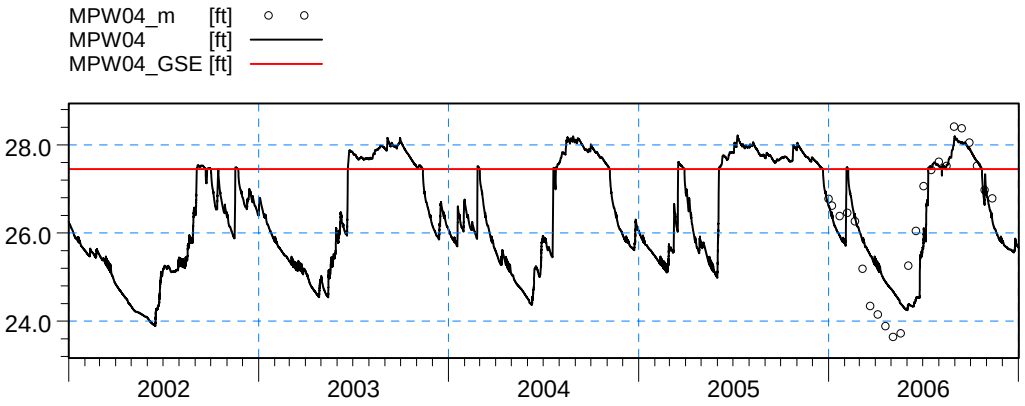


ME=-0.616588
MAE=0.620849
RMSE=0.709745
STDres=0.351508
R(Correlation)=0.983144
R2(Nash_Sutcliffe)=0.694746

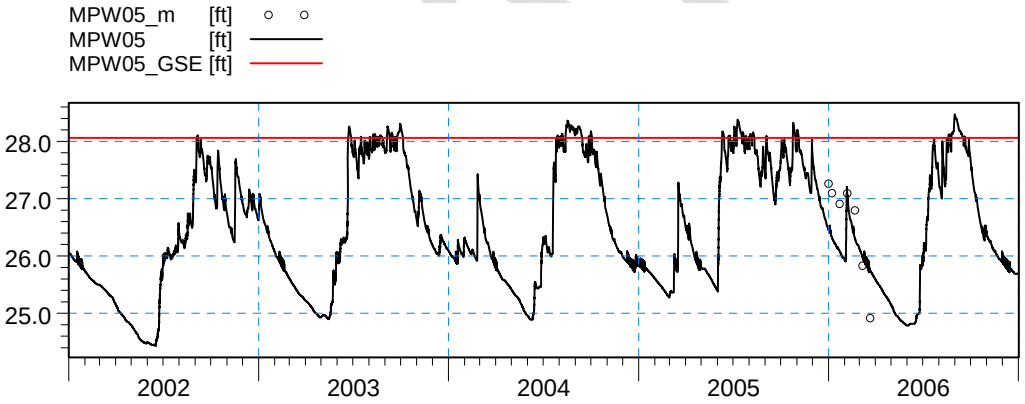


ME=-0.964686
MAE=0.964686
RMSE=0.972781
STDres=0.125238
R(Correlation)=0.98205
R2(Nash_Sutcliffe)=-1.46683

Figure B18. Groundwater elevation at wells MPW02 and MPW03, after refinement.

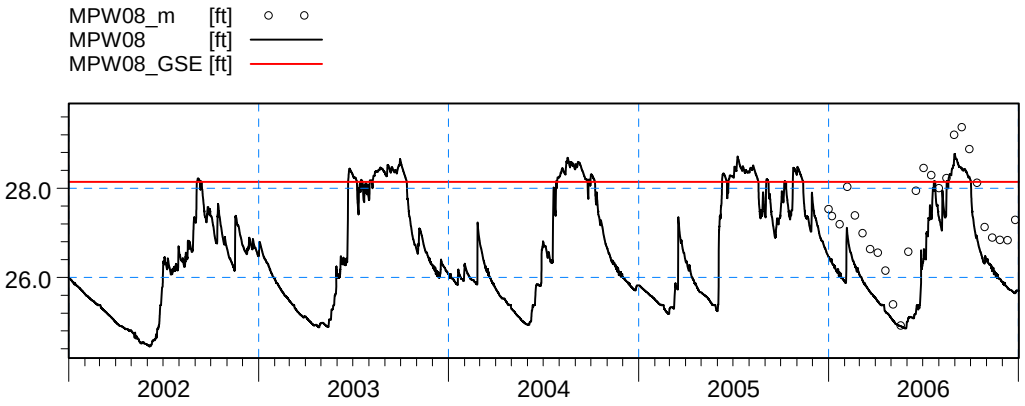


ME=-0.0532552
MAE=0.535123
RMSE=0.67337
STDres=0.67126
R(Correlation)=0.907102
R2(Nash_Sutcliffe)=0.810456

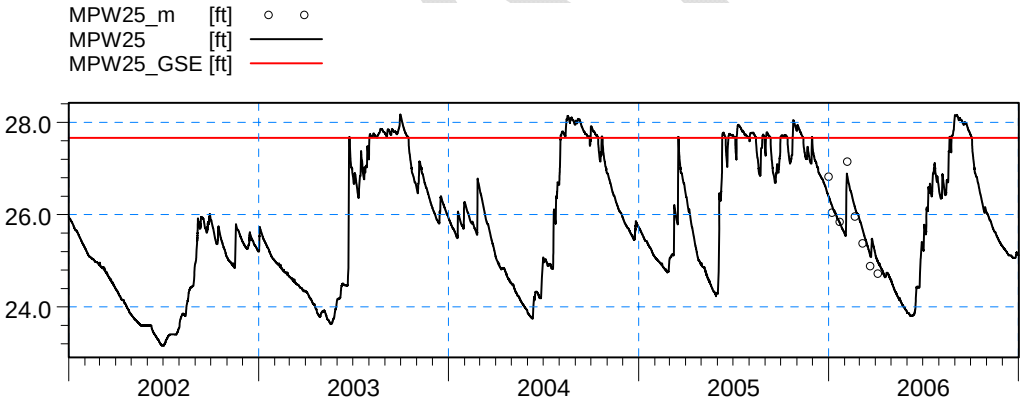


ME=0.266602
MAE=0.556511
RMSE=0.605915
STDres=0.544111
R(Correlation)=0.733039
R2(Nash_Sutcliffe)=0.306681

Figure B19. Groundwater elevation at wells MPW04 and MPW05, after refinement.

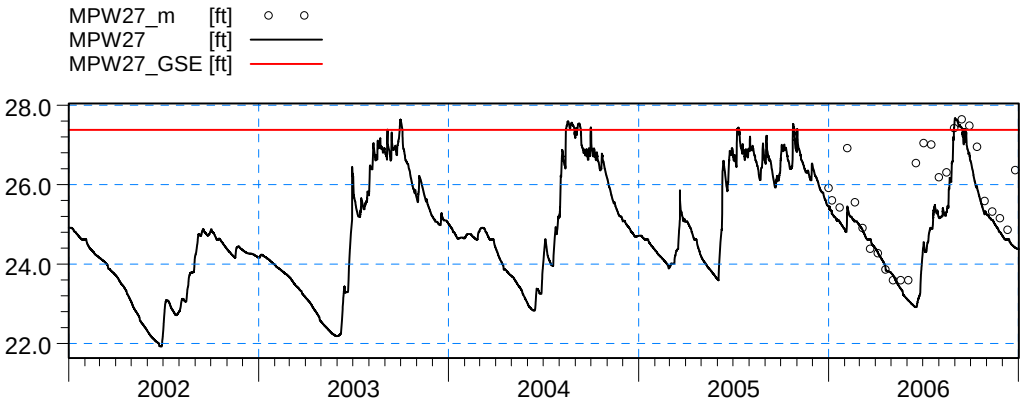


ME=0.990972
MAE=0.994096
RMSE=1.09613
STDres=0.468488
R(Correlation)=0.908185
R2(Nash_Sutcliffe)=0.0181446

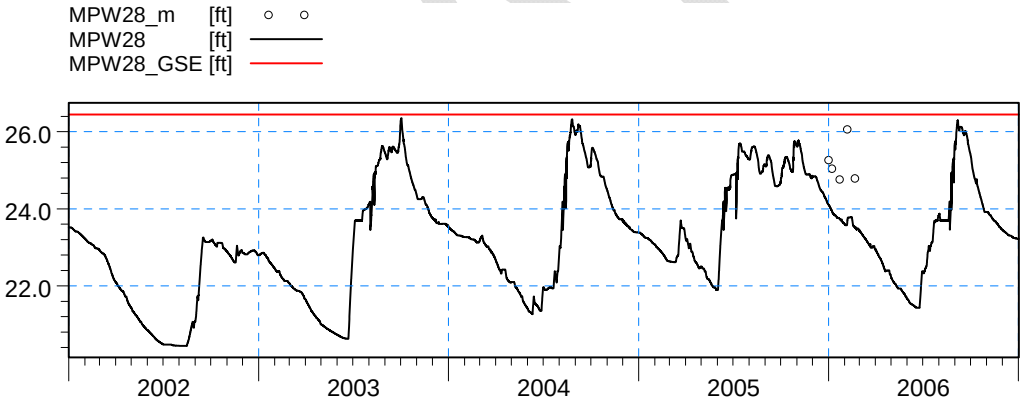


ME=-0.120091
MAE=0.26843
RMSE=0.310526
STDres=0.286364
R(Correlation)=0.952225
R2(Nash_Sutcliffe)=0.828998

Figure B20. Groundwater elevation at wells MPW08 and MPW25, after refinement.

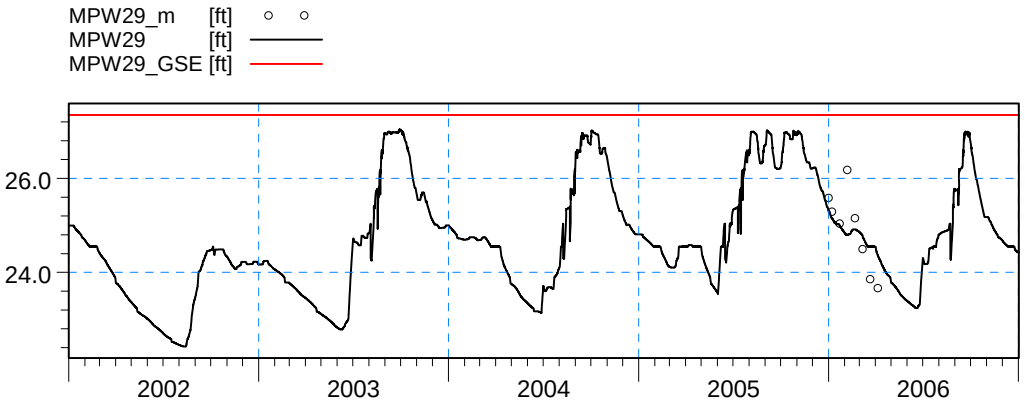


ME=0.692464
MAE=0.711822
RMSE=1.04325
STDres=0.7803
R(Correlation)=0.795394
R2(Nash_Sutcliffe)=0.335832

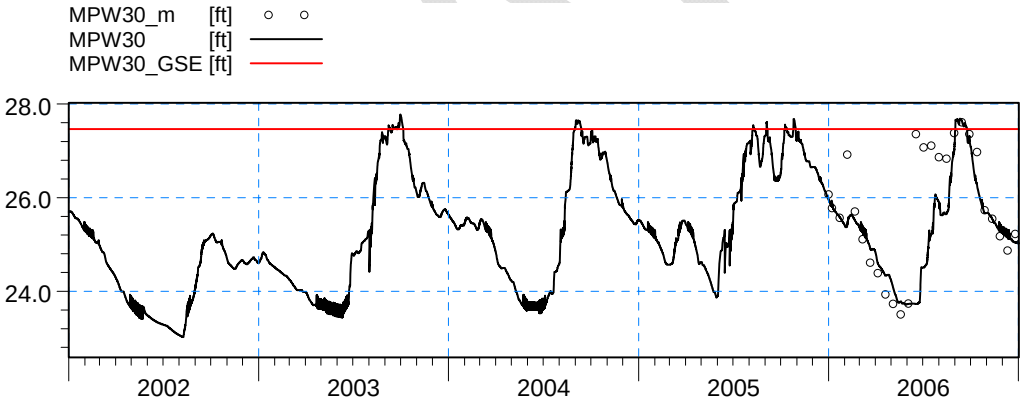


ME=1.16482
MAE=1.16482
RMSE=1.22787
STDres=0.38843
R(Correlation)=0.50919
R2(Nash_Sutcliffe)=-6.50899

Figure B21. Groundwater elevation at wells MPW27 and MPW28, after refinement.

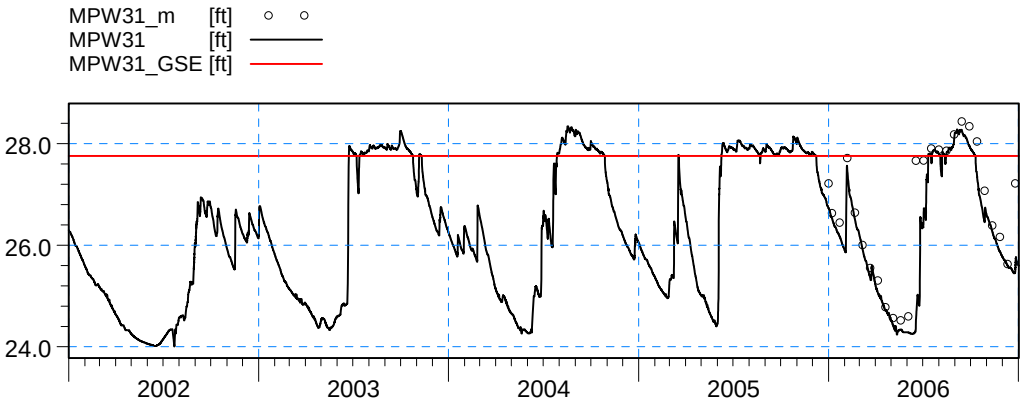


ME=-0.0930842
MAE=0.408892
RMSE=0.533603
STDres=0.525421
R(Correlation)=0.844635
R2(Nash_Sutcliffe)=0.485862

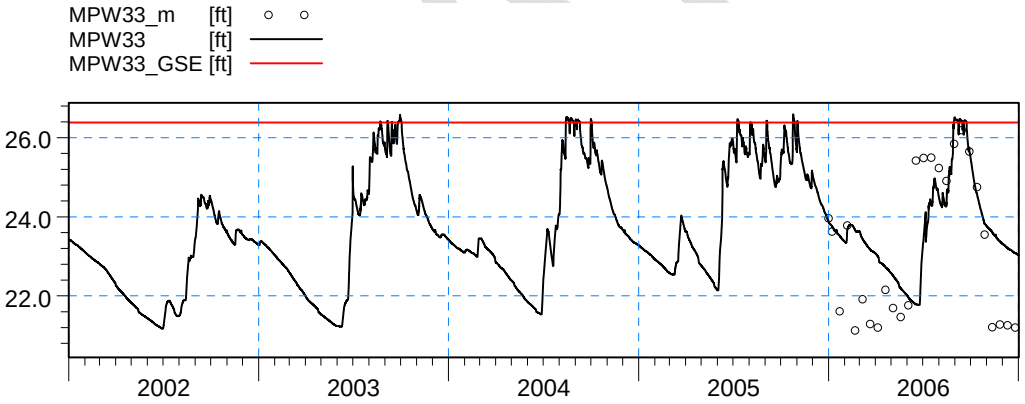


ME=0.386133
MAE=0.592821
RMSE=0.965849
STDres=0.885305
R(Correlation)=0.73153
R2(Nash_Sutcliffe)=0.44312

Figure B22. Groundwater elevation at wells MPW29 and MPW30, after refinement.

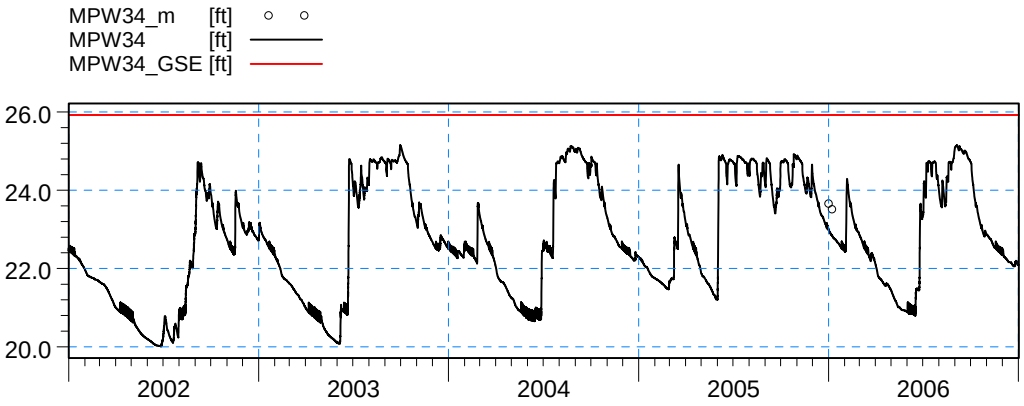


ME=0.380657
MAE=0.387031
RMSE=0.589928
STDres=0.450683
R(Correlation)=0.935567
R2(Nash_Sutcliffe)=0.780764

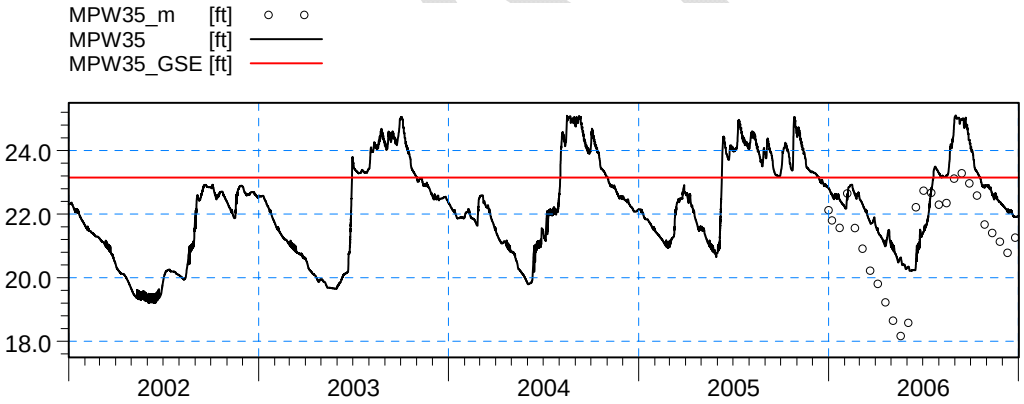


ME=-0.556437
MAE=1.18361
RMSE=1.48213
STDres=1.37371
R(Correlation)=0.696321
R2(Nash_Sutcliffe)=0.393506

Figure B23. Groundwater elevation at wells MPW31 and MPW33, after refinement.

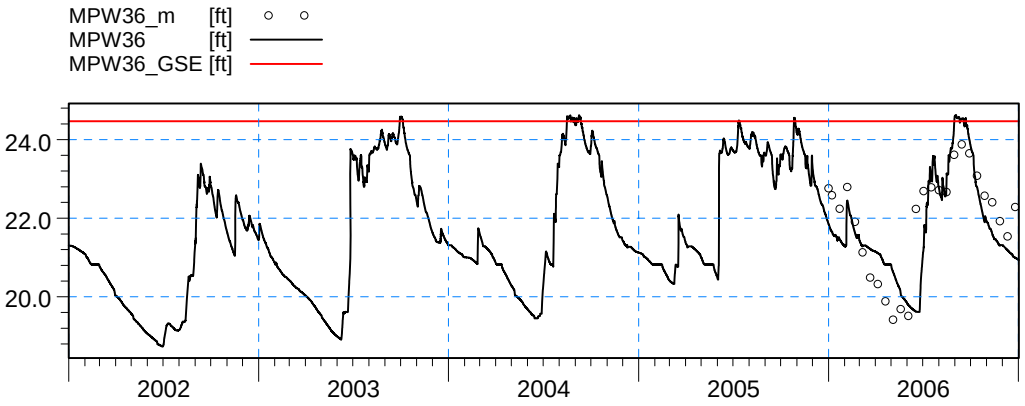


ME=0.624417
MAE=0.624417
RMSE=0.626974
STDres=0.0565652
R(Correlation)=0.983537
R2(Nash_Sutcliffe)=-17.5005

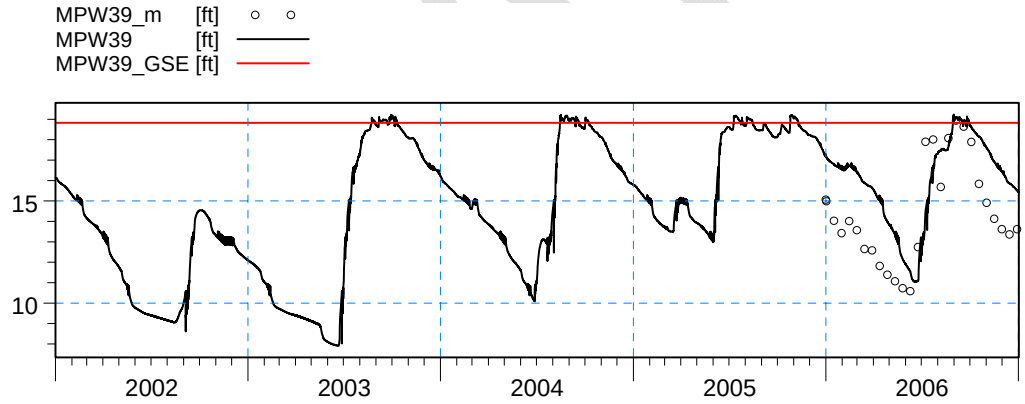


ME=-1.10294
MAE=1.25656
RMSE=1.36304
STDres=0.800865
R(Correlation)=0.838832
R2(Nash_Sutcliffe)=0.140964

Figure B24. Groundwater elevation at wells MPW34 and MPW35, after refinement.

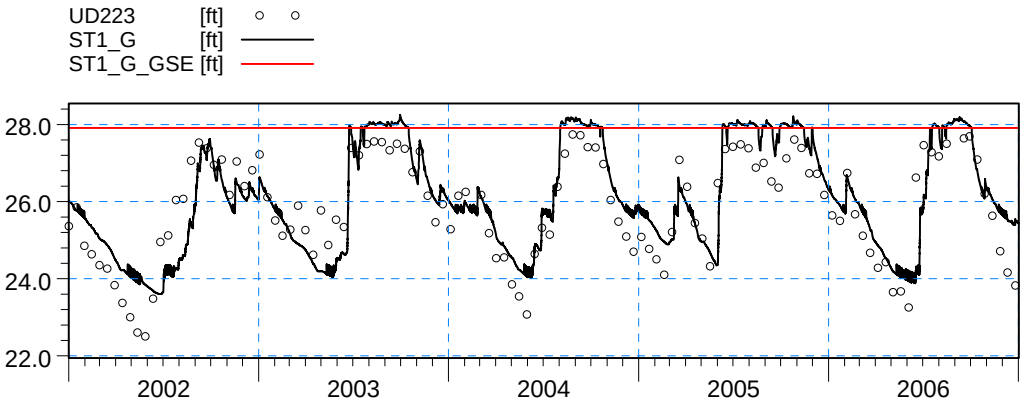


ME=0.0762097
MAE=0.607109
RMSE=0.741544
STDres=0.737618
R(Correlation)=0.841994
R2(Nash_Sutcliffe)=0.690066

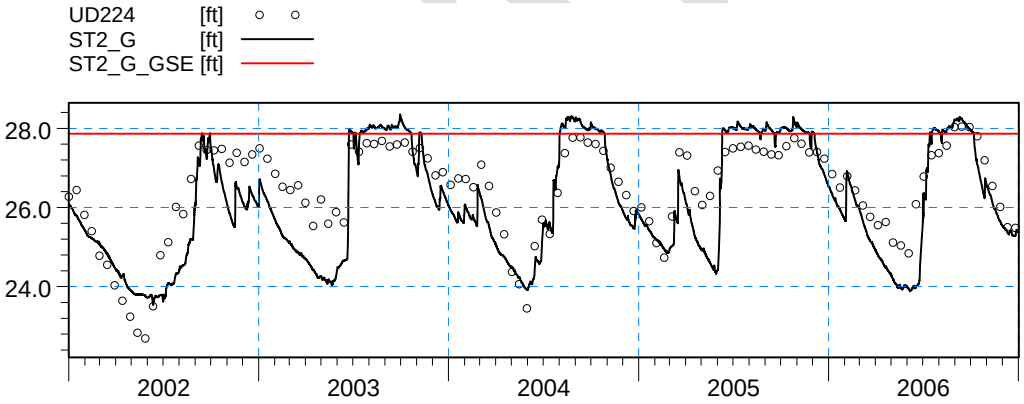


ME=-1.52507
MAE=2.19578
RMSE=2.45984
STDres=1.93002
R(Correlation)=0.660331
R2(Nash_Sutcliffe)=0.0300196

Figure B25. Groundwater elevation at wells MPW36 and MPW39, after refinement.

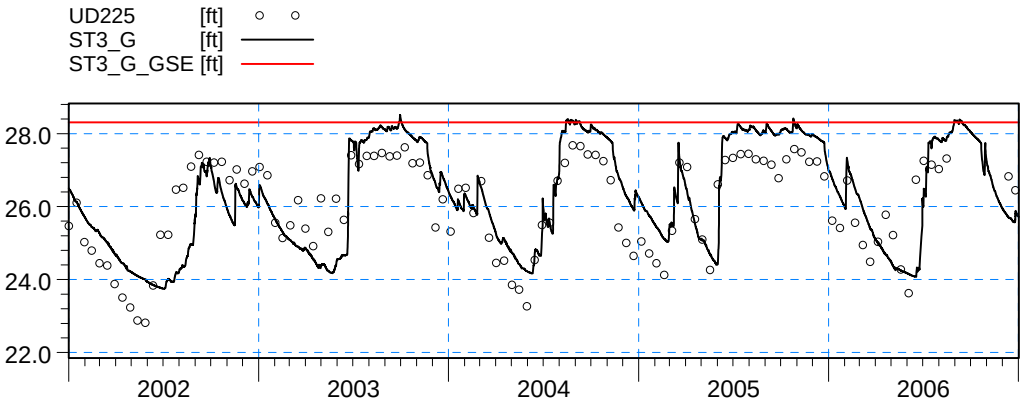


ME=-0.258589
MAE=0.610426
RMSE=0.731978
STDres=0.68478
R(Correlation)=0.871193
R2(Nash_Sutcliffe)=0.71066

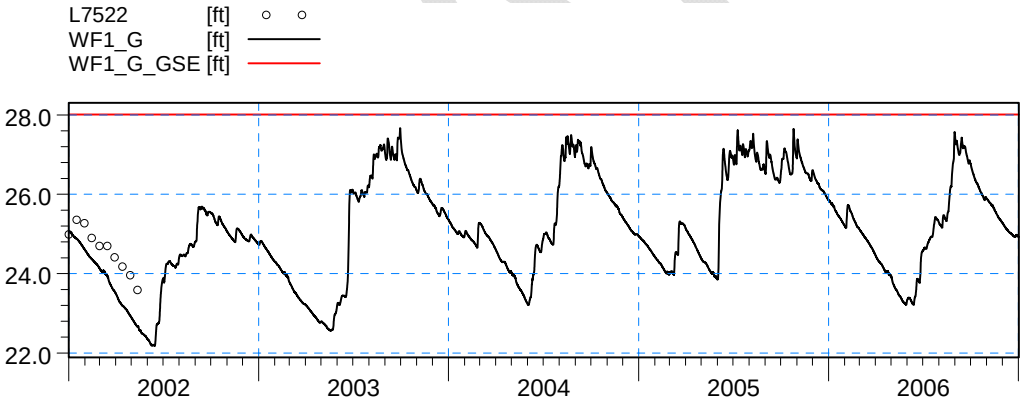


ME=0.336614
MAE=0.662502
RMSE=0.797297
STDres=0.722754
R(Correlation)=0.862329
R2(Nash_Sutcliffe)=0.569231

Figure B26. Groundwater elevation at wells ST1_G and ST2_G, after refinement.

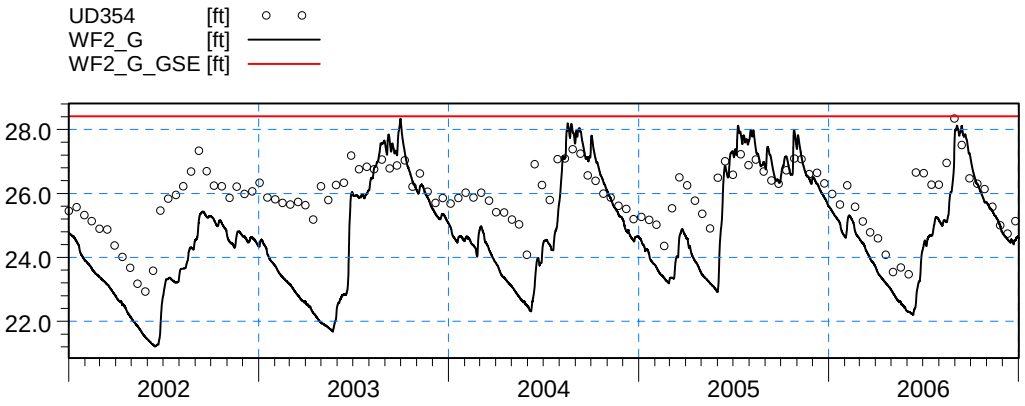


ME=-0.199552
MAE=0.752673
RMSE=0.864958
STDres=0.841624
R(Correlation)=0.805634
R2(Nash_Sutcliffe)=0.543968

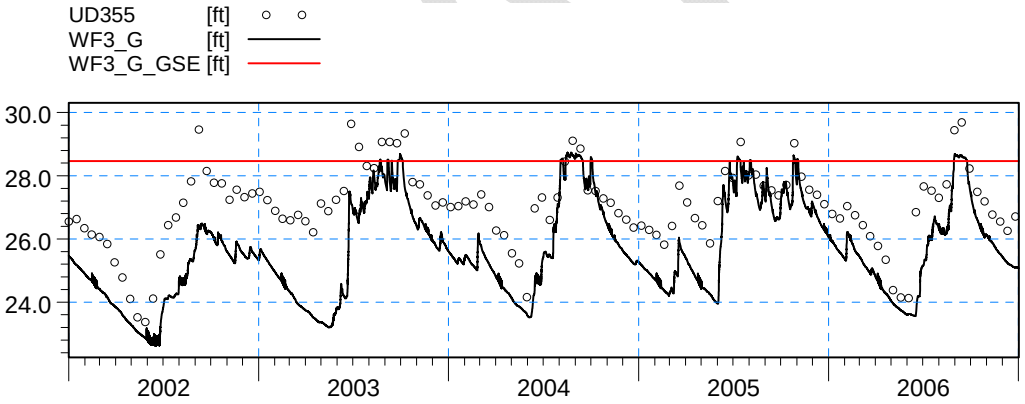


ME=0.683901
MAE=0.694185
RMSE=0.751569
STDres=0.311665
R(Correlation)=0.94532
R2(Nash_Sutcliffe)=-1.24606

Figure B27. Groundwater elevation at wells ST3_G and WF1_G, after refinement.

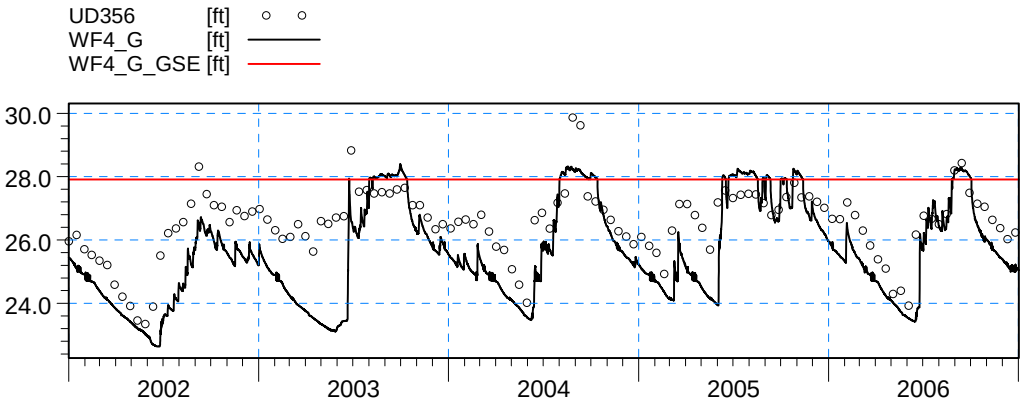


ME=1.13388
MAE=1.29008
RMSE=1.61327
STDres=1.14759
R(Correlation)=0.757831
R2(Nash_Sutcliffe)=-1.66004

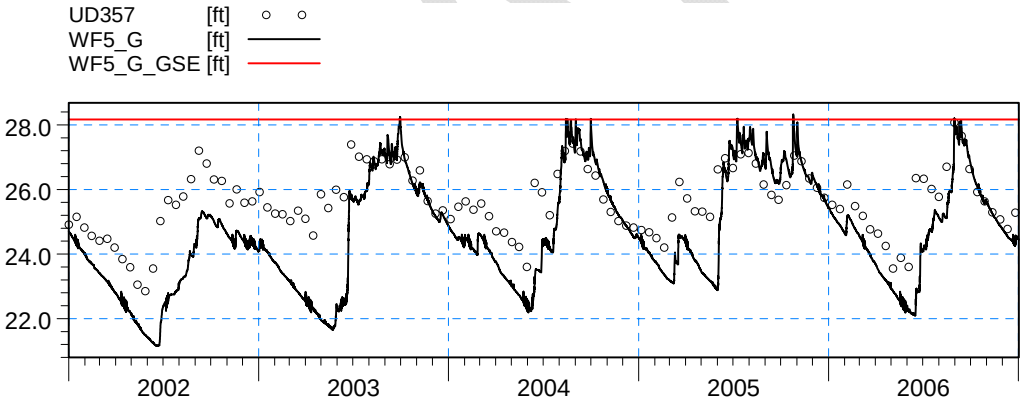


ME=1.3775
MAE=1.38444
RMSE=1.58922
STDres=0.792544
R(Correlation)=0.84447
R2(Nash_Sutcliffe)=-0.604467

Figure B28. Groundwater elevation at wells WF2_G and WF3_G, after refinement.

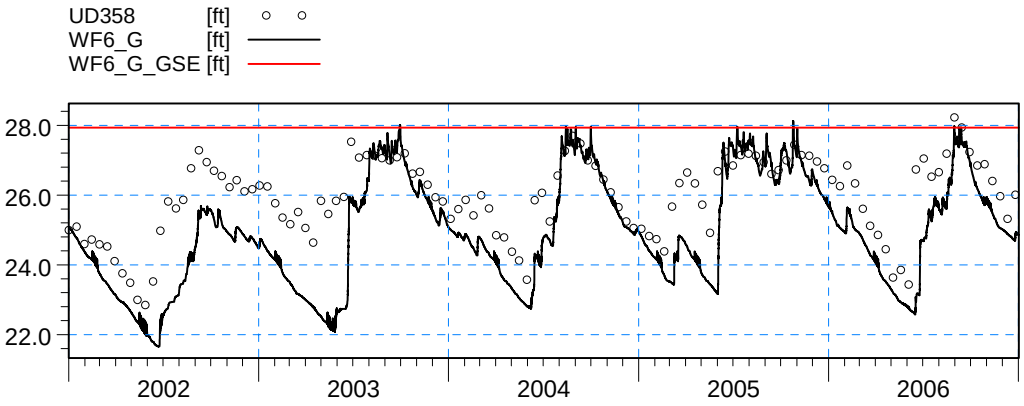


ME=0.908792
MAE=1.06321
RMSE=1.27764
STDres=0.898029
R(Correlation)=0.806699
R2(Nash_Sutcliffe)=-0.297008

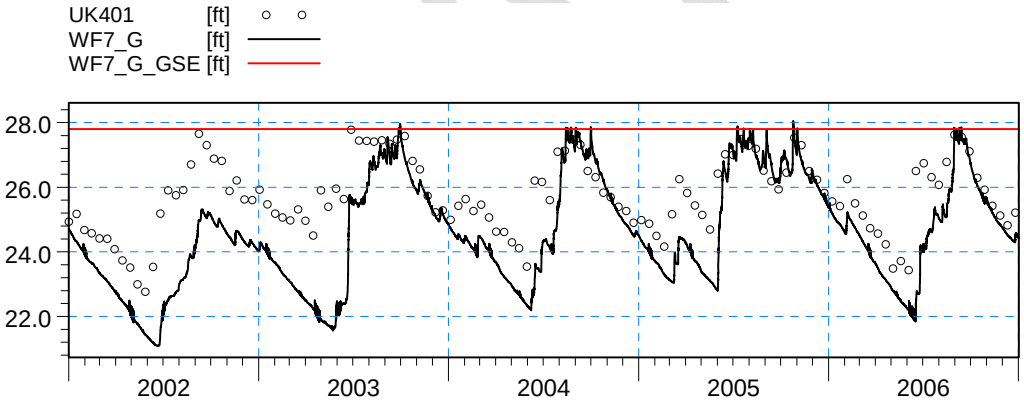


ME=0.966318
MAE=1.11034
RMSE=1.4315
STDres=1.05614
R(Correlation)=0.789249
R2(Nash_Sutcliffe)=-0.895795

Figure B29. Groundwater elevation at wells WF4_G and WF5_G, after refinement.



ME=0.986615
MAE=1.04175
RMSE=1.32131
STDres=0.878894
R(Correlation)=0.825518
R2(Nash_Sutcliffe)=-0.331434



ME=1.13977
MAE=1.19621
RMSE=1.52914
STDres=1.01941
R(Correlation)=0.792976
R2(Nash_Sutcliffe)=-0.693257

Figure B30. Groundwater elevation at wells WF6_G and WF7_G, after refinement.

Appendix B2. Surface water stations south from Caloosahatchee

	before refinement					after refinement				
Station Name	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
10 Mi Canal 8490	-0.57	0.57	0.82	0.27	**1.5**	-0.59	0.59	0.83	0.27	**1.5**
6 Mi Cypress 1128	1.26	1.51	1.77	0.59	**2.3**	1.36	1.57	1.81	0.61	**2.0**
6 Mi Cypress 3600	0.49	0.70	0.77	0.62	**1.3**	0.67	0.83	1.02	0.62	**1.8**
6 Mi Cypress 7755	-0.42	0.77	1.01	0.67	**1.5**	-0.52	0.86	1.05	0.73	**1.8**
6 Mi Cypress 10535	1.50	1.54	1.71	0.77	**2.0**	1.56	1.62	1.80	0.73	**2.3**
6 Mi Cypress 10565	1.38	1.39	1.51	0.85	**1.8**	1.44	1.46	1.60	0.81	**1.8**
6 Mi Cypress 14150	1.66	2.47	3.29	0.30	**3.0**	1.72	2.48	3.32	0.30	**3.0**
CorkScrewCan 1174	-2.01	2.03	2.26	0.83	**2.5**	-1.54	1.63	1.92	0.78	**2.3**
CorkTribCan 0	---	---	---	---	---	0.13	1.34	1.68	0.50	**2.0**
Hendry Creek 768	2.78	2.79	2.98	0.02	**3.0**	2.76	2.77	2.96	0.04	**3.0**
KehlCan 9358	1.18	1.75	2.19	0.73	**2.5**	1.26	1.67	2.09	0.73	**2.5**
KehlCan 9479	-0.19	0.66	0.99	0.95	**1.0**	0.03	0.76	1.08	0.93	**1.3**
Mullock Creek_2702	5.24	5.24	5.25	0.63	**2.8**	2.51	2.51	2.54	0.62	**2.8**
OR Buckingham	0.15	0.47	0.61	0.88	**1.0**	-0.16	0.52	0.74	0.91	**1.0**
OR Harns Marsh HW	1.71	1.77	2.01	0.90	**2.5**	0.57	1.04	1.14	0.94	**1.5**
OR Harns Marsh Q	---	---	---	0.86	**1.0**	---	---	---	0.92	**1.0**
S-A-1-HW	0.06	0.34	0.42	0.59	**1.5**	0.04	0.36	0.46	0.57	**1.5**
S-A-2_HW	-0.46	0.49	0.56	0.84	**1.0**	-0.52	0.54	0.63	0.70	**1.3**
S-HC-1_HW	-4.86	5.01	5.17	-0.1	**3.0**	-0.17	0.72	1.07	0.0	**1.8**
S-HC-2_HW	-1.20	1.20	1.38	0.46	**2.3**	-0.97	0.97	1.13	0.47	**2.3**
S-NM-2 Q	---	---	---	0.48	**3.0**	---	---	---	0.43	**3.0**
S-NM-2_HW	-0.03	0.18	0.24	0.61	**1.3**	-0.01	0.18	0.23	0.65	**1.3**
S-NM-2_TW	0.82	1.01	1.13	0.60	**2.3**	0.80	1.03	1.16	0.44	**2.0**
S-SF-1 Q	---	---	---	0.83	**1.0**	---	---	---	0.74	**2.0**
S-SF-1_HW	1.29	1.29	1.30	0.91	**1.8**	0.14	0.18	0.23	0.88	**1.0**
S-SF-1_TW	-0.04	0.28	0.37	0.52	**1.5**	-0.03	0.30	0.47	0.44	**1.5**
S-YT-2_HW	1.16	1.26	1.46	0.72	**2.0**	1.54	1.66	1.88	0.74	**2.3**

Table B3. Statistical parameters and level of performance at surface water stations south of the Caloosahatchee River. The green color indicates the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

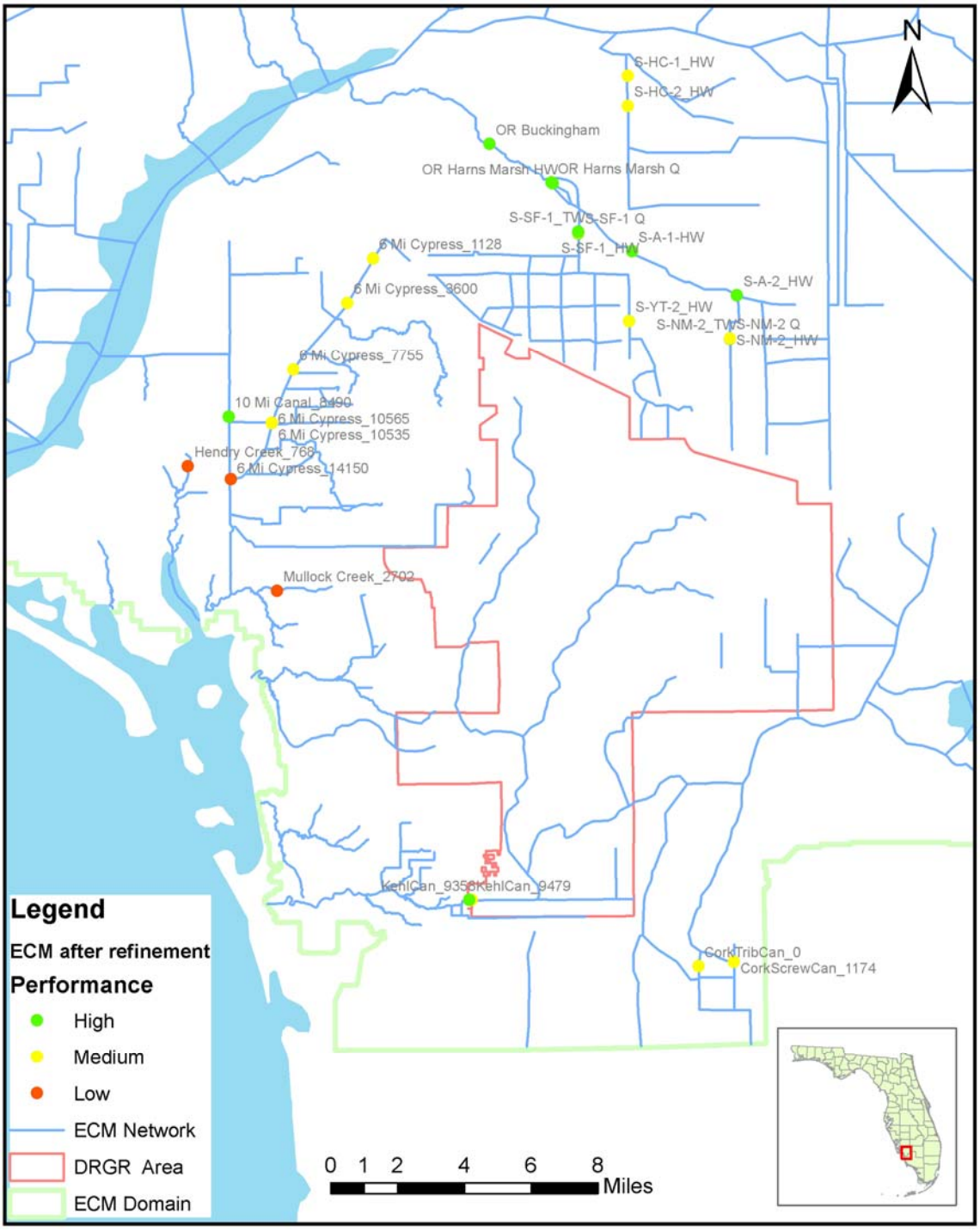
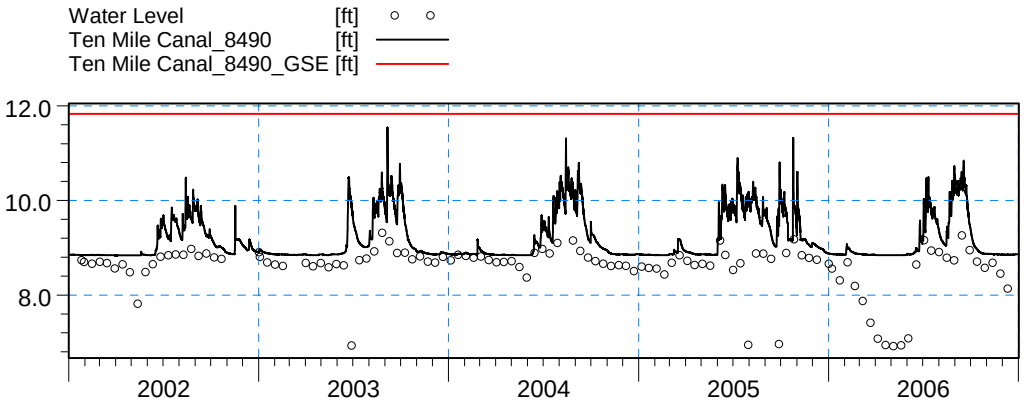
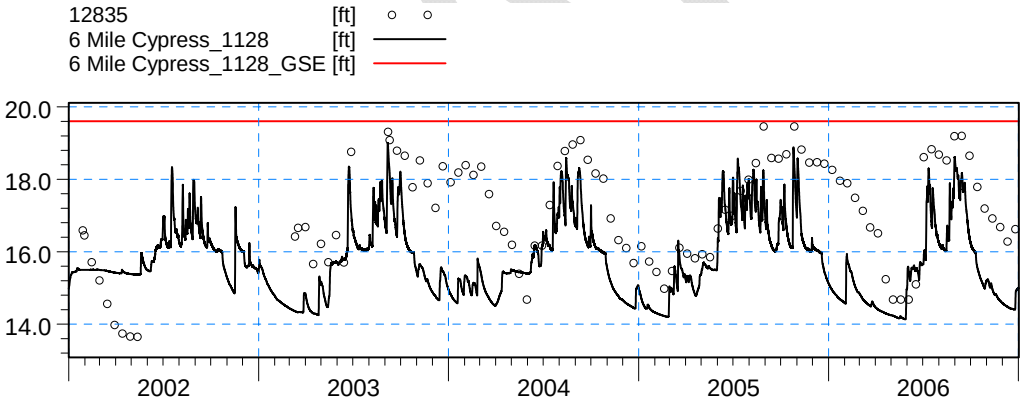


Figure B31. Average performance level at surface water monitoring stations south of Caloosahatchee River, after the refinement process.

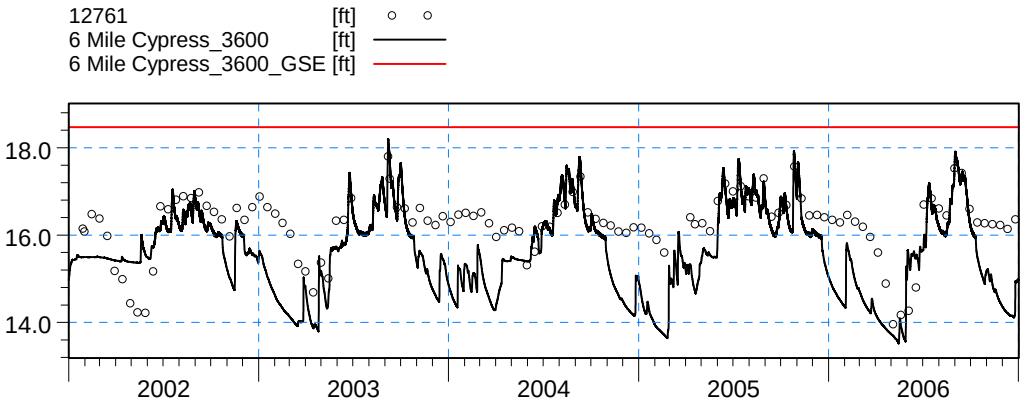


ME=-0.588085
MAE=0.588113
RMSE=0.83281
STDres=0.589685
R(Correlation)=0.265991
R2(Nash_Sutcliffe)=-1.52849

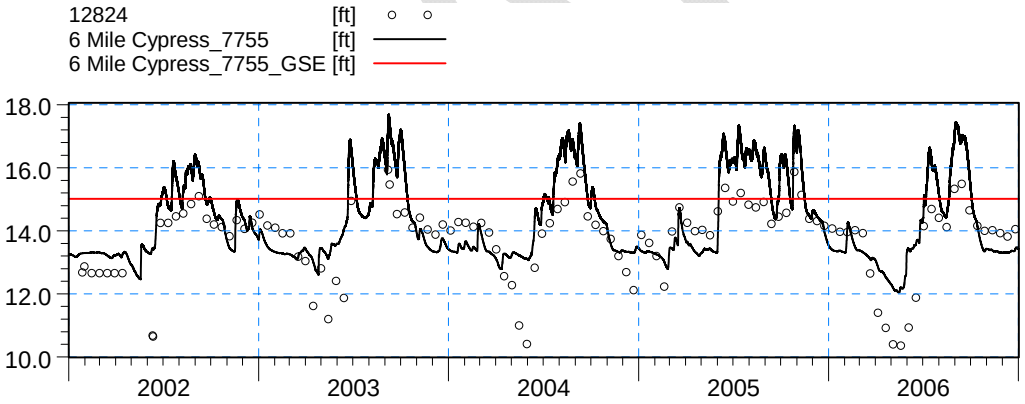


ME=1.36283
MAE=1.57469
RMSE=1.80997
STDres=1.19108
R(Correlation)=0.612756
R2(Nash_Sutcliffe)=-0.462988

Figure B32. Stage at stations 10 Mi Canal 8490 and 6 Mi Cypress 1128, after refinement.

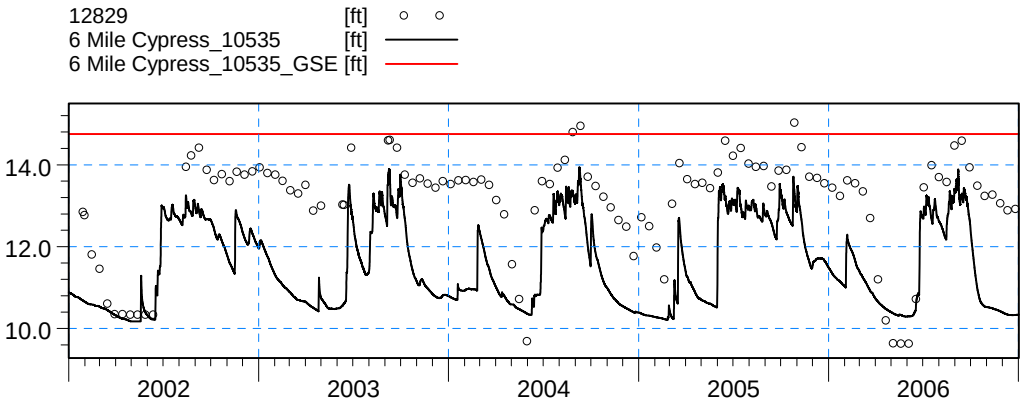


ME=0.672623
MAE=0.830582
RMSE=1.02426
STDres=0.772455
R(Correlation)=0.622314
R2(Nash_Sutcliffe)=-0.856346

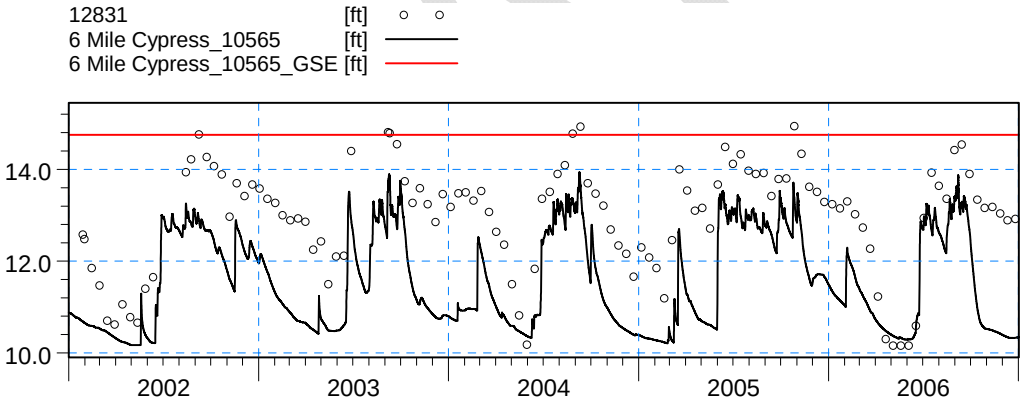


ME=-0.51574
MAE=0.864802
RMSE=1.04543
STDres=0.909366
R(Correlation)=0.731534
R2(Nash_Sutcliffe)=0.220577

Figure B33. Stage at stations 6 Mi Cypress 3600 and 6 Mi Cypress 7755, after refinement.

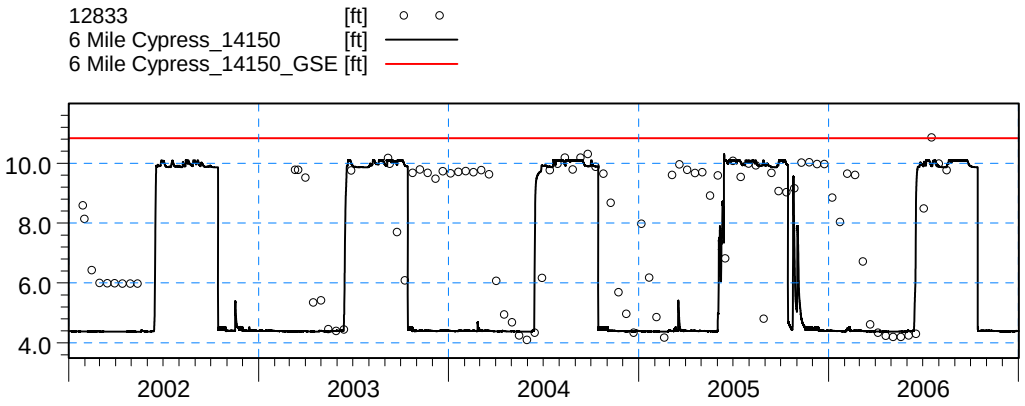


ME=1.56038
MAE=1.61927
RMSE=1.79889
STDres=0.895113
R(Correlation)=0.725609
R2(Nash_Sutcliffe)=-0.942251

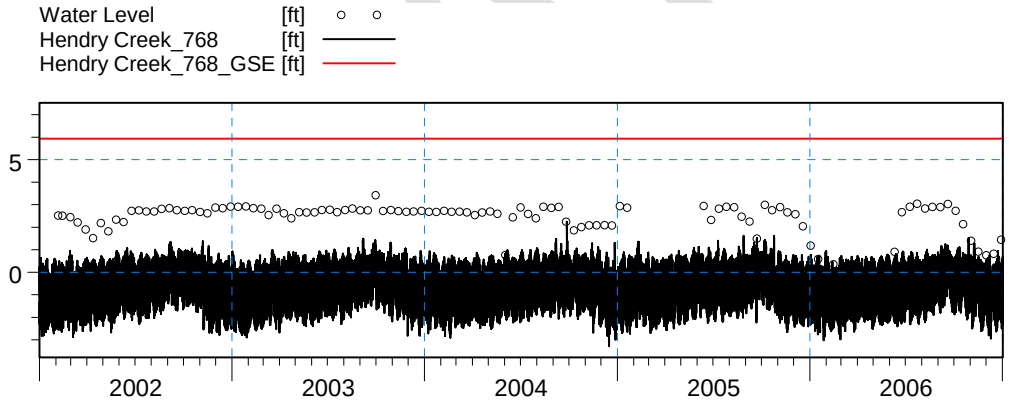


ME=1.43888
MAE=1.45631
RMSE=1.59616
STDres=0.690914
R(Correlation)=0.811747
R2(Nash_Sutcliffe)=-0.854769

Figure B34. Stage at stations 6 Mi Cypress 10535 and 6 Mi Cypress 10565, after refinement.

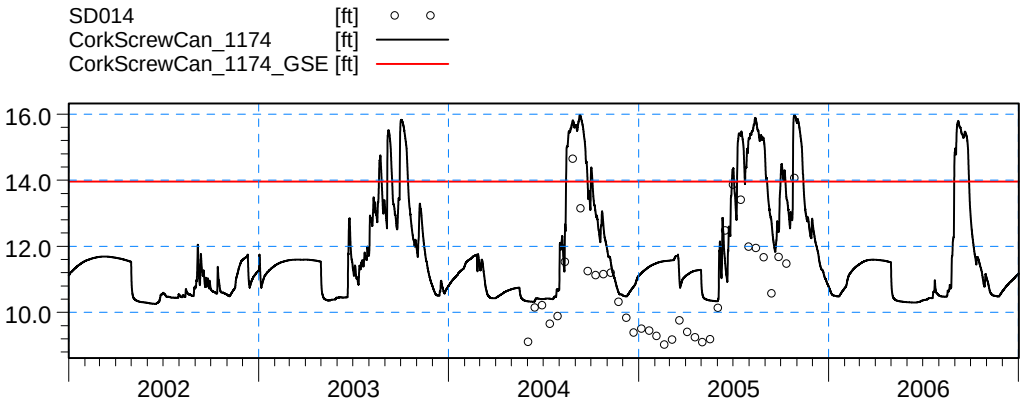


ME=1.71887
MAE=2.4831
RMSE=3.31772
STDres=2.83774
R(Correlation)=0.301083
R2(Nash_Sutcliffe)=-1.10748

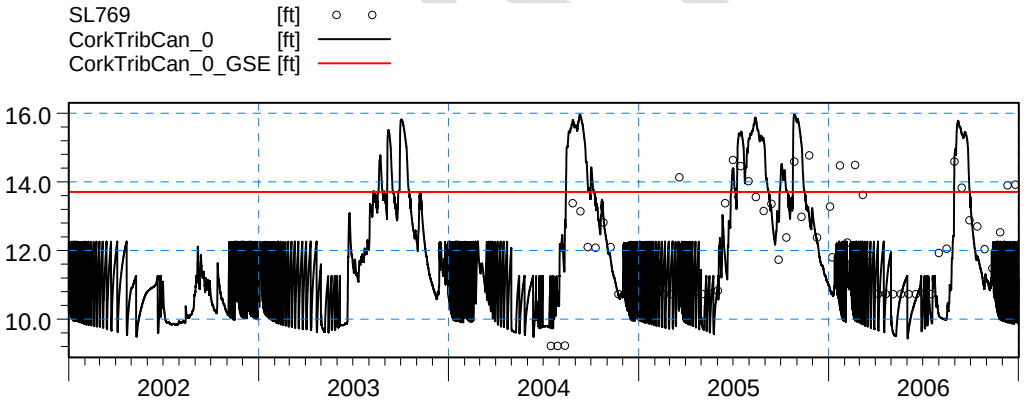


ME=2.76077
MAE=2.768
RMSE=2.96011
STDres=1.06791
R(Correlation)=0.0418683
R2(Nash_Sutcliffe)=-11.2114

Figure B35. Stage at stations 6 Mi Cypress 14150 and Hendry Creek 768, after refinement.

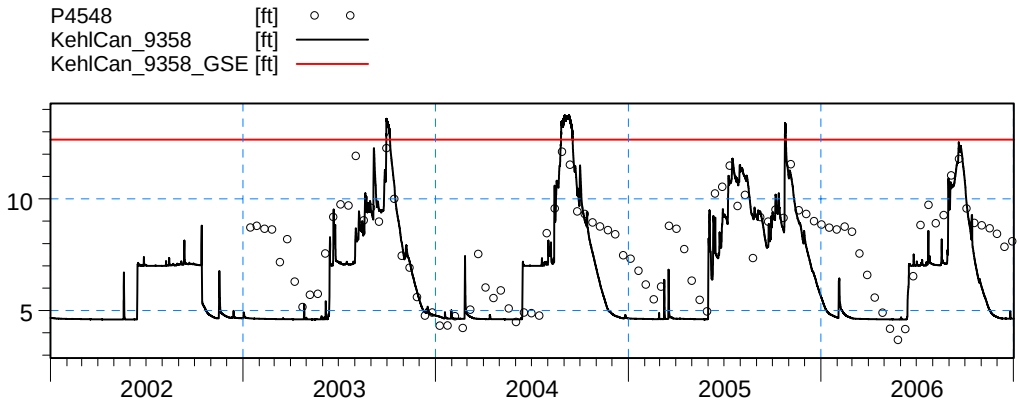


ME=-1.53872
MAE=1.62687
RMSE=1.92364
STDres=1.15445
R(Correlation)=0.782989
R2(Nash_Sutcliffe)=-0.587475

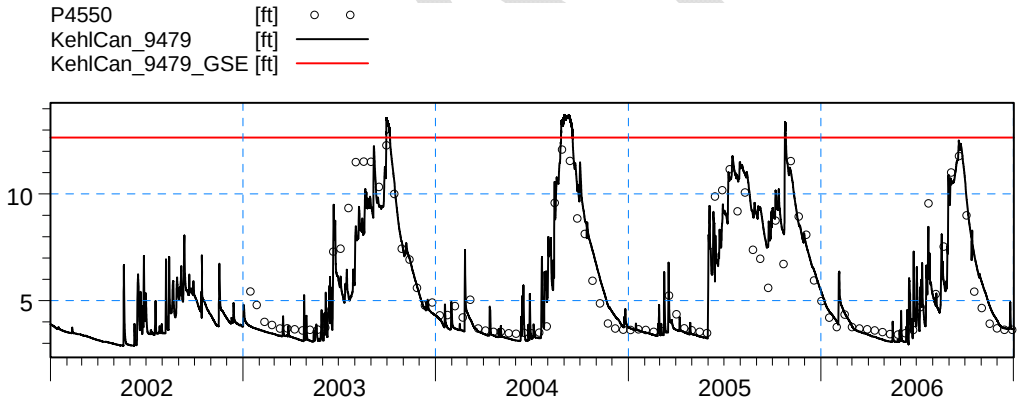


ME=0.135381
MAE=1.33816
RMSE=1.68236
STDres=1.67691
R(Correlation)=0.495851
R2(Nash_Sutcliffe)=-0.366319

Figure B36. Stage at stations CorkScrewCan 1174 and CorkTribCan 0, after refinement.

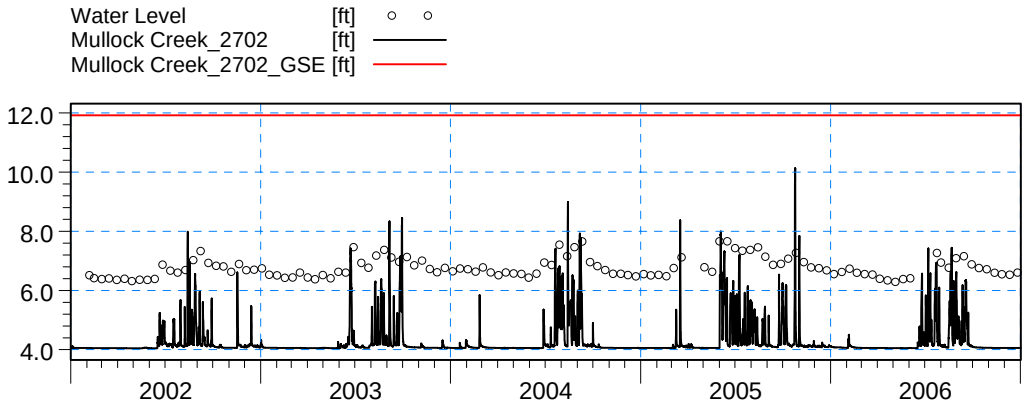


ME=1.25663
MAE=1.66719
RMSE=2.09345
STDres=1.67434
R(Correlation)=0.731174
R2(Nash_Sutcliffe)=-0.0161315

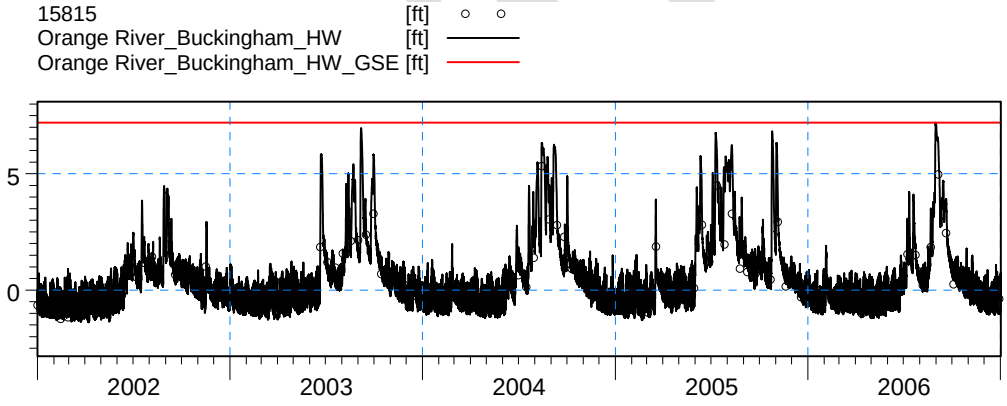


ME=0.0309709
MAE=0.763722
RMSE=1.07566
STDres=1.07522
R(Correlation)=0.925463
R2(Nash_Sutcliffe)=0.842275

Figure B37. Stage at stations KehlCan 9358 and KehlCan 9479, after refinement.

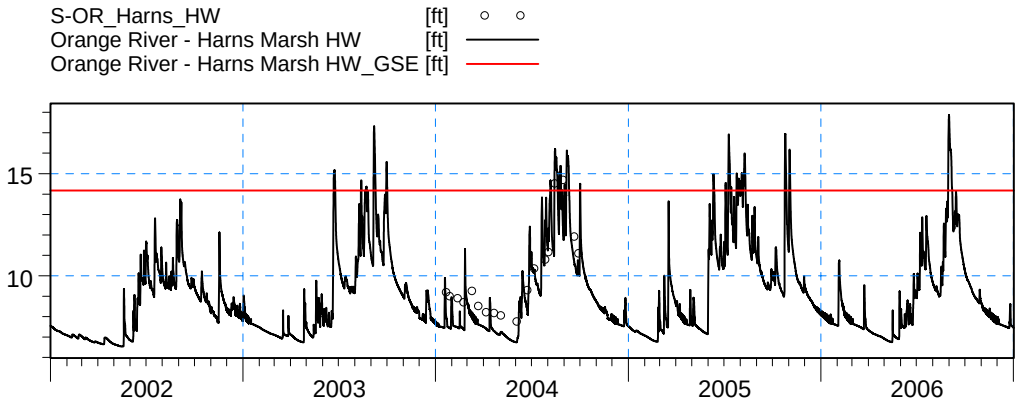


ME=2.50563
MAE=2.50992
RMSE=2.53893
STDres=0.409854
R(Correlation)=0.621291
R2(Nash_Sutcliffe)=-51.6848

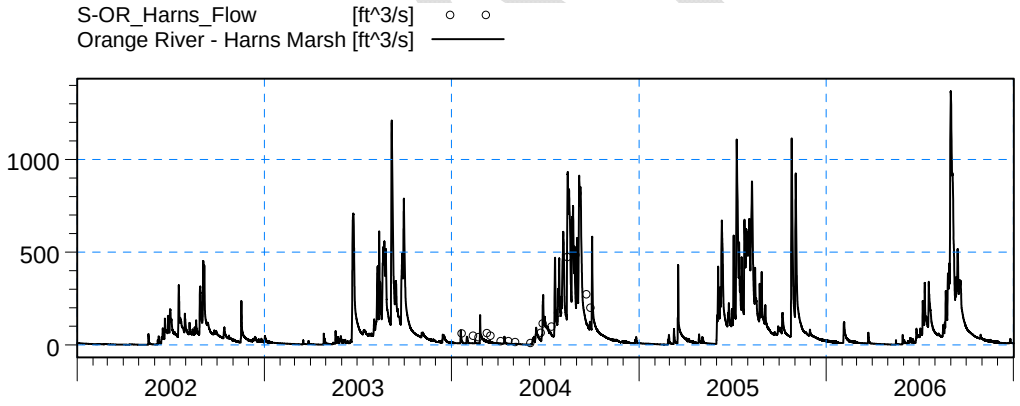


ME=-0.162162
MAE=0.518109
RMSE=0.736942
STDres=0.718879
R(Correlation)=0.905109
R2(Nash_Sutcliffe)=0.604474

Figure B38. Stage at stations Mullock Creek_2702 and OR Buckingham, after refinement.

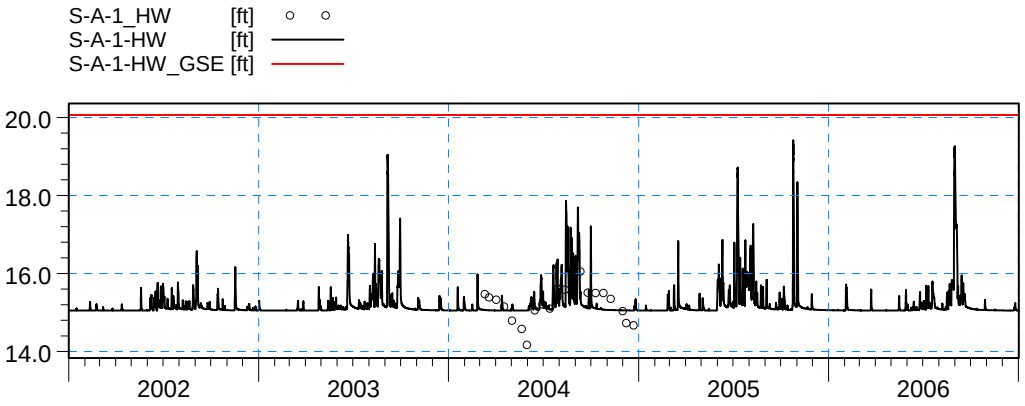


ME=0.56711
MAE=1.03529
RMSE=1.13885
STDres=0.98761
R(Correlation)=0.943808
R2(Nash_Sutcliffe)=0.779726

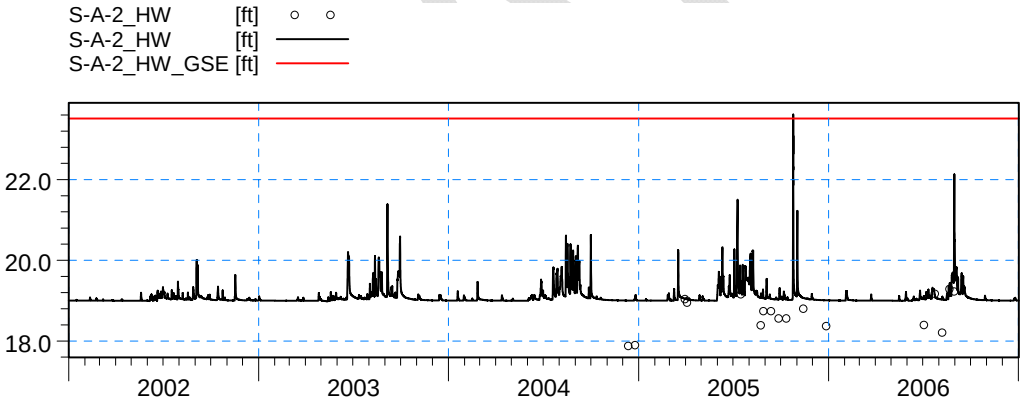


ME=-4.53047
MAE=74.7637
RMSE=107.167
STDres=107.072
R(Correlation)=0.918734
R2(Nash_Sutcliffe)=0.616506

Figure B39. Stage at station OR Harns Marsh HW and flow at OR Harns Marsh Q, after refinement.

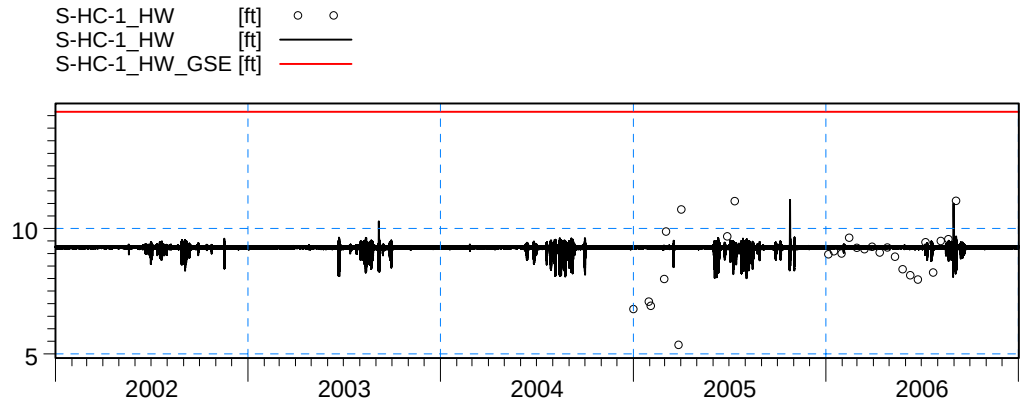


ME=0.0367344
MAE=0.364576
RMSE=0.456581
STDres=0.455101
R(Correlation)=0.574239
R2(Nash_Sutcliffe)=0.164268

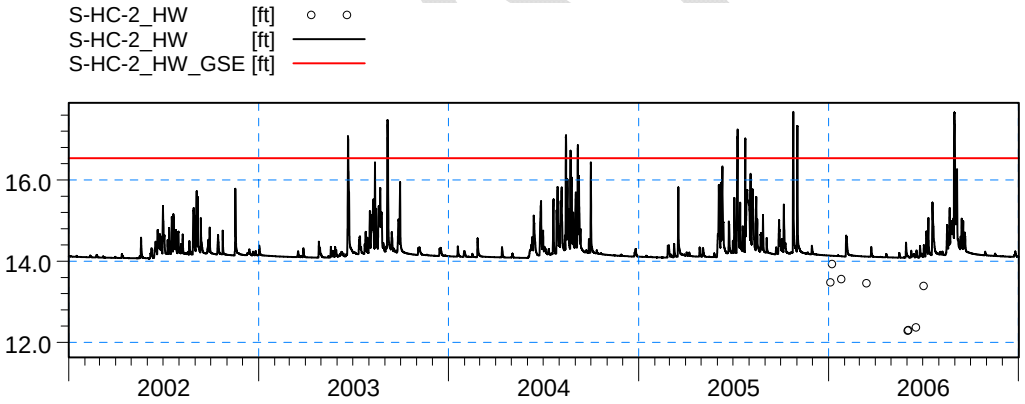


ME=-0.517303
MAE=0.542896
RMSE=0.630586
STDres=0.360606
R(Correlation)=0.698681
R2(Nash_Sutcliffe)=-0.613465

Figure B40. Stage at stations S-A-1-HW and S-A-2-HW, after refinement.

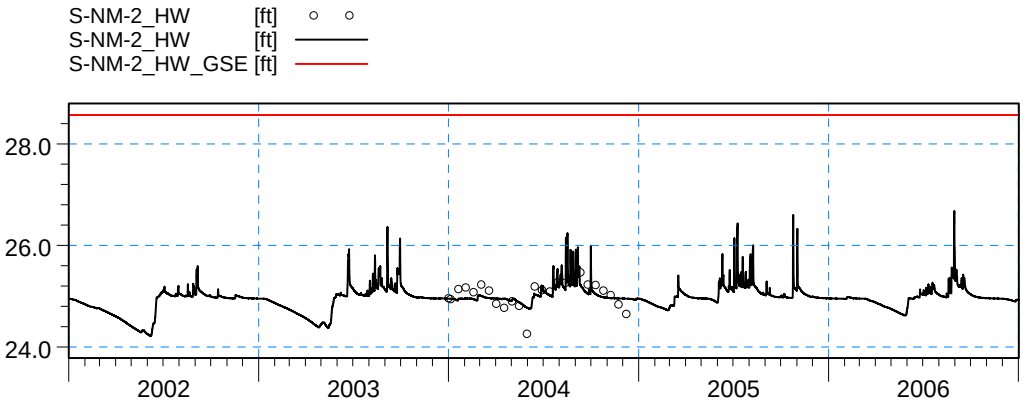


ME=-0.165743
MAE=0.721964
RMSE=1.07032
STDres=1.05741
R(Correlation)=-0.0416622
R2(Nash_Sutcliffe)=-0.0494705

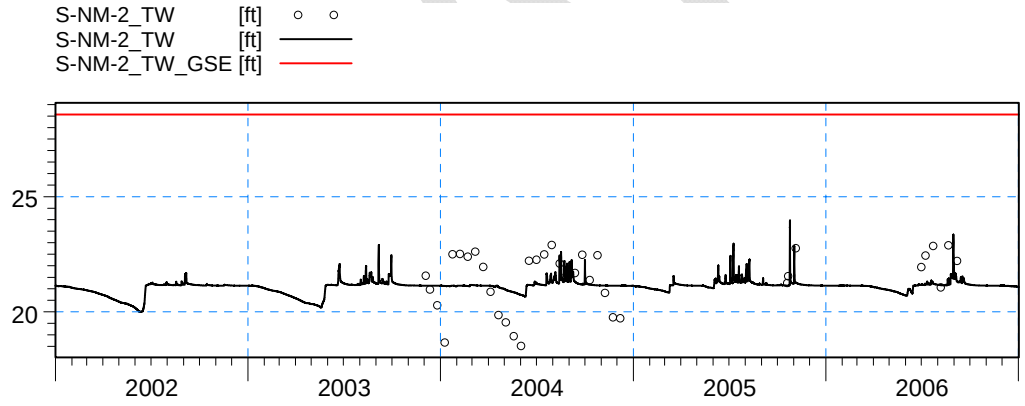


ME=-0.965089
MAE=0.967494
RMSE=1.12694
STDres=0.581899
R(Correlation)=0.469869
R2(Nash_Sutcliffe)=-2.05252

Figure B41. Stage at stations S-HC-1_HW and S-HC-2_HW, after refinement.

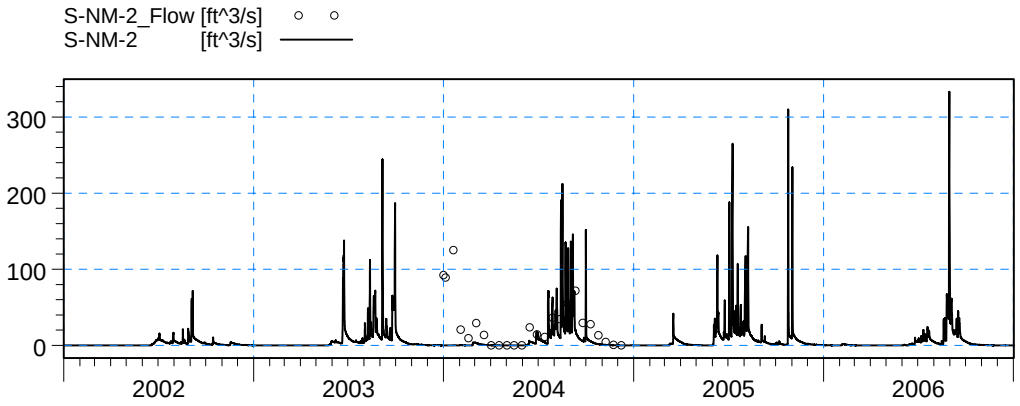


ME=-0.00840827
MAE=0.176218
RMSE=0.230439
STDres=0.230286
R(Correlation)=0.649714
R2(Nash_Sutcliffe)=0.420769

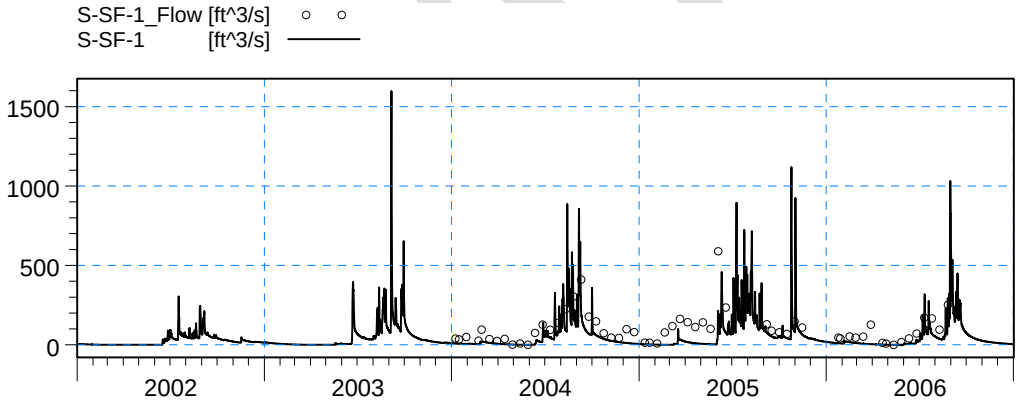


ME=0.799709
MAE=1.0344
RMSE=1.15746
STDres=0.83677
R(Correlation)=0.440162
R2(Nash_Sutcliffe)=-0.569621

Figure B42. Stage at stations S-NM-2_HW and S-NM-2_TW, after refinement.

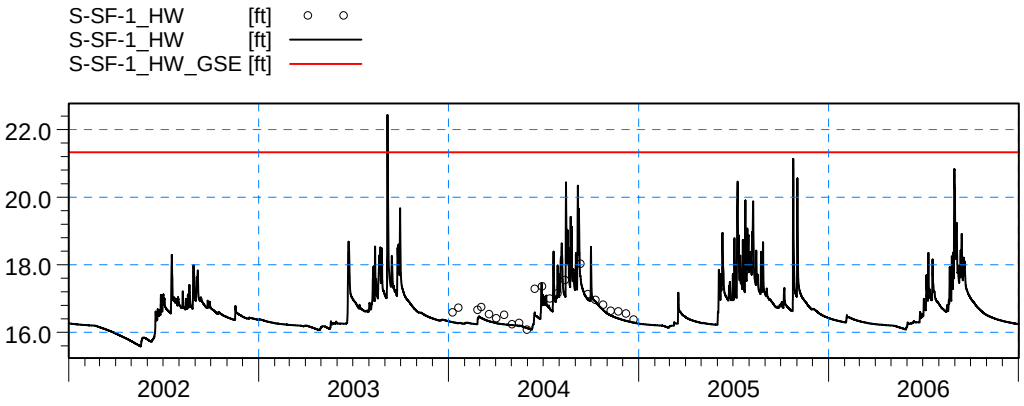


ME=16.7471
MAE=20.7897
RMSE=35.7248
STDres=31.5562
R(Correlation)=0.427276
R2(Nash_Sutcliffe)=-0.217012

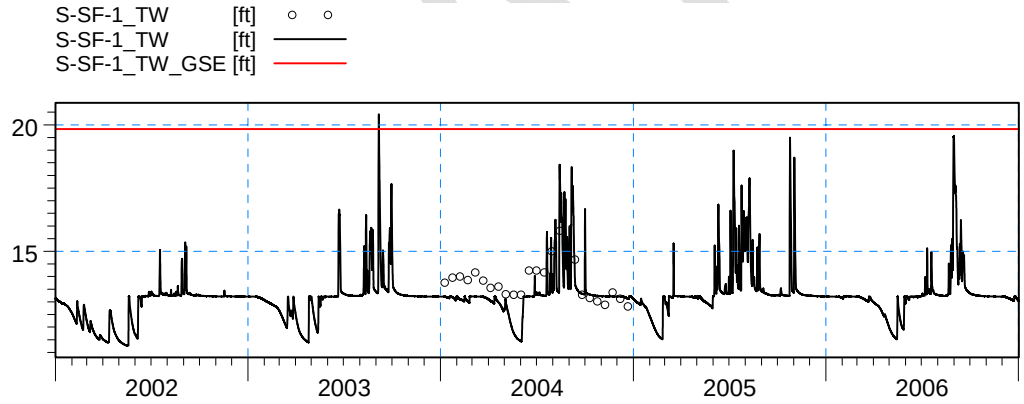


ME=66.218
MAE=72.5838
RMSE=97.3322
STDres=71.3354
R(Correlation)=0.742374
R2(Nash_Sutcliffe)=0.119243

Figure B43. Flow at stations S-NM-2 Q and S-SF-1 Q, after refinement.

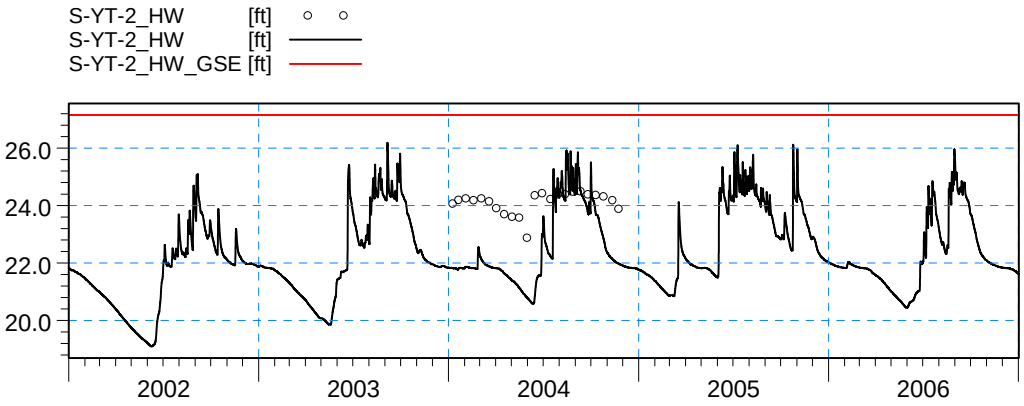


ME=0.14101
MAE=0.177881
RMSE=0.230141
STDres=0.181881
R(Correlation)=0.881874
R2(Nash_Sutcliffe)=0.373379



ME=-0.0309521
MAE=0.299845
RMSE=0.471354
STDres=0.470336
R(Correlation)=0.441746
R2(Nash_Sutcliffe)=-0.22742

Figure B44. Stage at stations S-SF-1_HW and S-SF-1_TW, after refinement.



ME=1.54173
MAE=1.65619
RMSE=1.87885
STDres=1.07384
R(Correlation)=0.739977
R2(Nash_Sutcliffe)=-19.2985

Figure B45. Stage at station S-YT-2_HW, after refinement.

Appendix B3. Groundwater deep wells south from Caloosahatchee

Station Name	before refinement					after refinement				
	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
L-2192	11.70	12.82	14.50	-0.77	**3.0**	1.17	4.16	5.30	0.28	**2.8**
L-5649	-0.16	3.31	3.82	0.10	**2.5**	-7.52	7.52	8.17	0.67	**2.8**
L-5664	-11.39	11.39	12.07	0.67	**2.8**	-9.17	9.17	10.12	0.49	**3.0**
L-5669R	1.97	2.29	2.56	-0.18	**2.8**	-0.25	0.57	0.69	0.77	**1.0**
L-5673	-7.63	7.72	8.80	-0.22	**3.0**	-8.43	8.47	9.19	0.60	**2.8**
L-5874	10.05	10.05	11.03	0.22	**3.0**	-3.09	3.53	4.36	0.70	**2.8**

Table B4. Statistical parameters and level of performance at deep groundwater monitoring wells (computational layer 3) south of the Caloosahatchee River. The green color indicates the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

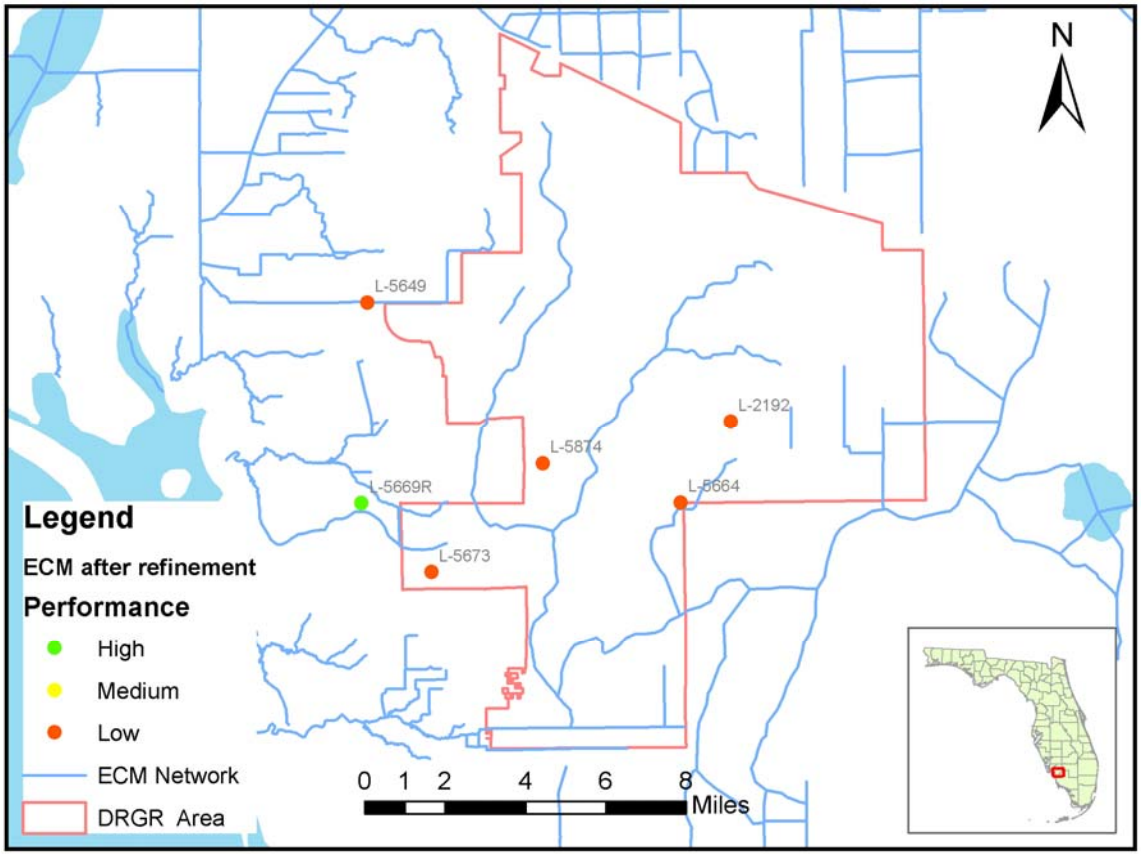
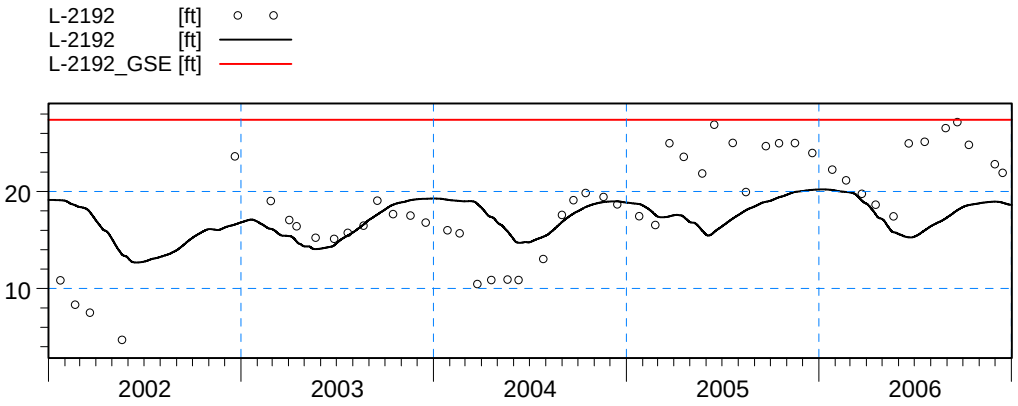
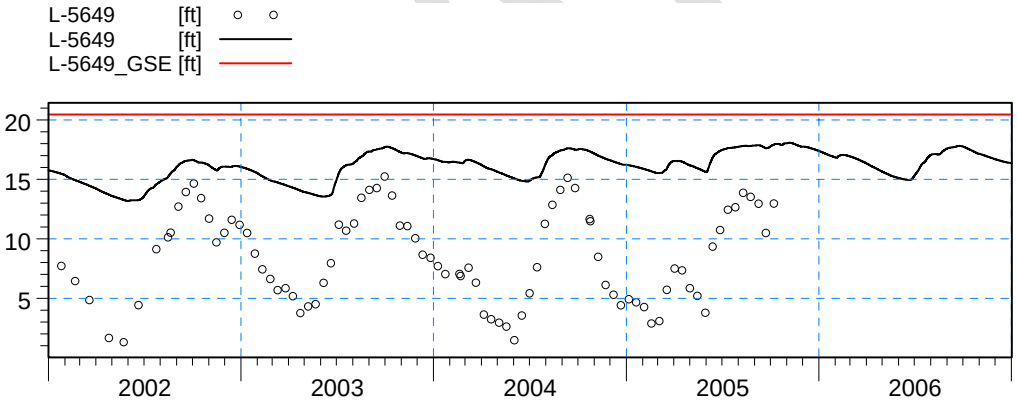


Figure B46. Average performance level at deep groundwater monitoring wells south of the Caloosahatchee River, after the refinement process.

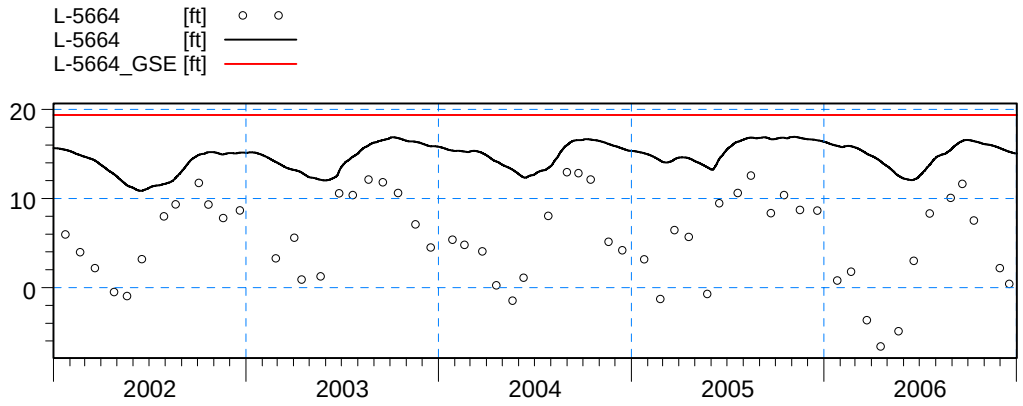


ME=1.16544
MAE=4.15687
RMSE=5.29633
STDres=5.16652
R(Correlation)=0.275558
R2(Nash_Sutcliffe)=0.0270882

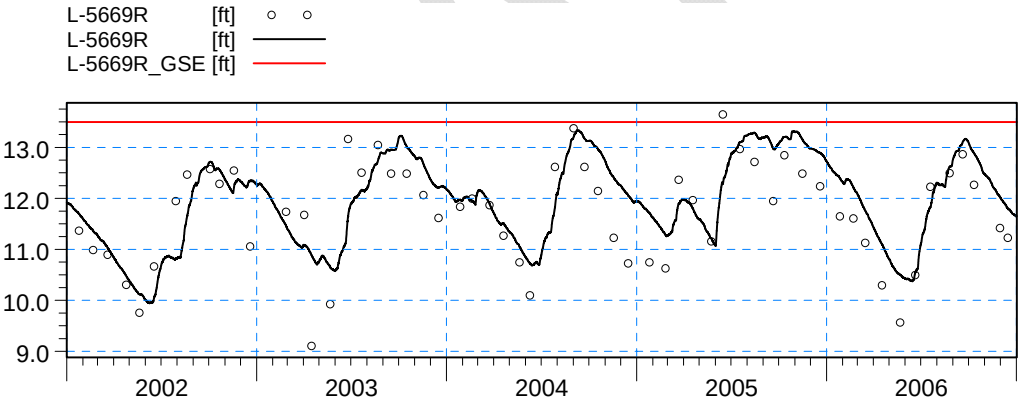


ME=-7.51639
MAE=7.51639
RMSE=8.16673
STDres=3.19365
R(Correlation)=0.672583
R2(Nash_Sutcliffe)=-3.57074

Figure B47. Groundwater elevation at wells L-2192 and L-5649, after refinement.

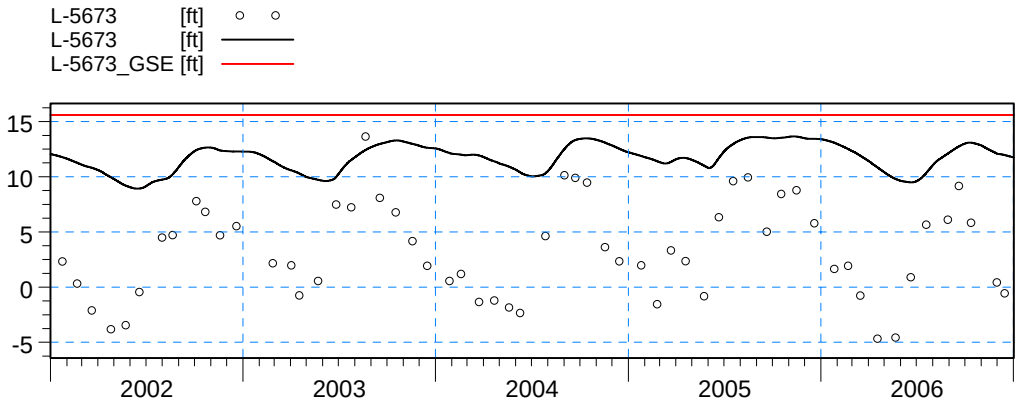


ME=-9.17243
MAE=9.17243
RMSE=10.1238
STDres=4.28469
R(Correlation)=0.49174
R2(Nash_Sutcliffe)=-3.38954

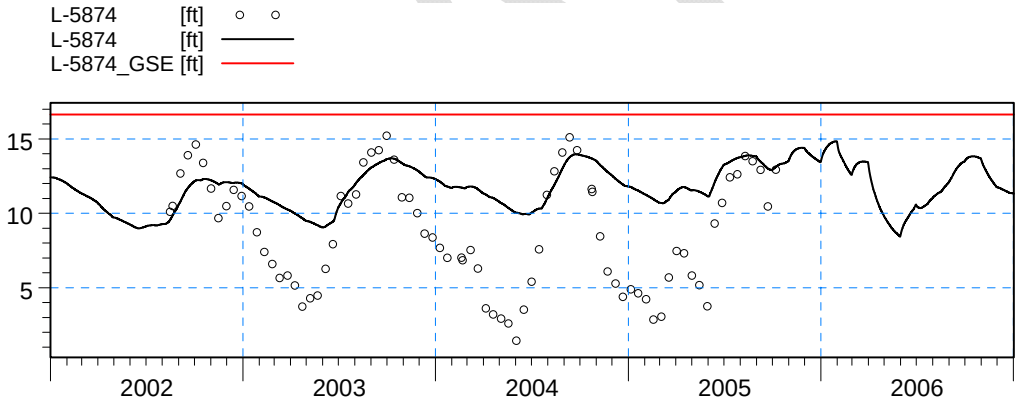


ME=-0.25114
MAE=0.567471
RMSE=0.68939
STDres=0.642018
R(Correlation)=0.773239
R2(Nash_Sutcliffe)=0.526848

Figure B48. Groundwater elevation at wells L-5664 and L-5669R, after refinement.



ME=-8.43256
MAE=8.47377
RMSE=9.19005
STDres=3.65362
R(Correlation)=0.594992
R2(Nash_Sutcliffe)=-3.65384



ME=-3.08921
MAE=3.53472
RMSE=4.35997
STDres=3.0767
R(Correlation)=0.695819
R2(Nash_Sutcliffe)=-0.306047

Figure B49. Groundwater elevation at wells L-5673 and L-5874, after refinement.

Appendix B4. Other groundwater well stations south of the Caloosahatchee

		before refinement					after refinement				
Station Name	Comp. layer	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
40-GW1	1	-0.04	0.73	1.11	0.67	**1.3**	0.10	0.73	1.06	0.72	**1.0**
40-GW2	2	-3.23	3.23	3.54	0.69	**2.8**	0.59	1.28	1.71	0.42	**2.0**
40-GW4	2	2.88	2.88	3.04	0.79	**2.5**	1.75	1.75	1.97	0.80	**1.8**
40-GW5	1	3.14	3.14	3.22	0.86	**2.5**	1.86	1.86	2.01	0.85	**1.8**
40-GW6	1	0.44	1.09	1.38	0.51	**1.8**	0.77	1.28	1.68	0.44	**2.0**
40-GW7	1	-1.32	1.35	1.71	0.62	**2.0**	-0.46	0.82	1.16	0.66	**1.3**
40-GW8	1	-0.09	0.77	0.91	0.79	**1.0**	0.20	0.71	0.92	0.76	**1.0**
40-GW9	1	-3.89	3.89	3.92	0.84	**2.5**	-3.79	3.79	3.83	0.86	**2.5**
40-GW11	1	-3.90	3.90	4.08	0.79	**2.5**	-3.76	3.76	3.96	0.85	**2.5**
40-GW12	1	2.66	2.66	2.76	0.72	**2.5**	1.59	1.60	1.84	0.78	**1.8**
40-GW13	1	-0.18	0.70	0.93	0.75	**1.0**	-0.22	0.69	0.90	0.80	**1.0**
41-GW1	1	-1.05	1.14	1.43	0.50	**2.3**	-0.75	1.01	1.27	0.50	**2.0**
41-GW3	1	-5.40	5.40	5.44	0.83	**2.5**	-4.81	4.81	4.87	0.81	**2.5**
41-GW4	1	-1.24	1.24	1.33	0.86	**1.8**	-0.85	0.85	1.00	0.81	**1.0**
41-GW6	1	0.80	0.95	1.17	0.75	**1.0**	1.29	1.35	1.55	0.75	**1.8**
42-GW1	1	-1.97	2.23	2.52	0.50	**2.8**	-2.01	2.27	2.57	0.46	**3.0**
42-GW2	1	-2.35	2.35	2.52	0.87	**2.5**	-1.95	1.95	2.09	0.86	**1.8**
42-GW3	1	-4.50	4.50	4.54	0.54	**2.8**	-4.35	4.35	4.39	0.54	**2.8**
44-GW2	1	-2.30	2.30	2.42	0.66	**2.5**	-1.75	1.76	1.93	0.59	**2.0**
44-GW3	1	-0.07	1.01	1.25	0.48	**2.0**	0.02	1.03	1.30	0.46	**2.0**
45-GW1	1	-2.98	2.98	3.06	0.53	**2.8**	-2.92	2.92	2.99	0.59	**2.8**
45-GW2	1	-2.27	2.27	2.45	0.81	**2.3**	-2.26	2.26	2.44	0.68	**2.5**
45-GW3	1	-3.70	3.70	3.99	-0.1	**3.0**	-3.60	3.60	3.92	0.0	**3.0**
45-GW4	1	0.51	0.62	0.88	0.62	**1.3**	0.47	0.58	0.84	0.65	**1.3**
46A-GW3	1	-2.28	2.29	2.49	0.74	**2.3**	-1.48	1.54	1.74	0.76	**1.8**
46A-GW4	1	-1.70	1.70	1.88	0.79	**1.8**	-0.40	1.11	1.35	0.74	**1.5**
46A-GW10	1	-0.17	0.52	0.73	0.82	**1.0**	-0.26	0.54	0.73	0.82	**1.0**
46A-GW11	1	-1.37	1.37	1.64	0.85	**1.8**	-0.91	0.91	1.02	0.93	**1.0**
46A-GW12	1	-1.73	1.88	2.40	0.20	**2.3**	-1.31	1.52	1.88	0.63	**2.0**
46A-GW13	1	-1.64	1.64	1.74	0.90	**1.8**	-1.01	1.10	1.23	0.84	**1.5**
46A-GW14	1	-0.91	1.03	1.23	0.71	**1.3**	-0.82	1.10	1.26	0.61	**1.8**
46A-GW15	1	-1.09	1.10	1.27	0.87	**1.8**	-0.24	0.55	0.70	0.87	**1.0**
46A-GW21	1	-0.96	0.99	1.21	0.79	**1.0**	-0.89	1.00	1.18	0.75	**1.0**
46A-GW22	1	-1.74	1.74	1.83	0.86	**1.8**	-1.29	1.34	1.48	0.84	**1.8**
46A-GW25	1	0.22	0.41	0.55	0.89	**1.0**	0.33	0.47	0.61	0.88	**1.0**
46A-GW26	1	-0.88	0.91	1.05	0.78	**1.0**	-0.10	0.54	0.69	0.80	**1.0**
46C-GW1	1	-2.20	2.20	2.28	0.64	**2.5**	-1.96	1.98	2.10	0.60	**2.0**

		before refinement					after refinement				
Station Name	Comp. layer	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
46C-GW2	1	-1.61	1.65	1.81	0.63	**2.0**	-1.07	1.27	1.46	0.57	**2.0**
46C-GW3	1	-0.99	1.01	1.22	0.39	**1.8**	-0.54	0.64	0.81	0.72	**1.0**
46C-GW6	1	5.06	5.06	5.11	0.66	**2.8**	4.45	4.45	4.48	0.75	**2.5**
46C-GW7	1	-0.65	0.73	1.02	0.56	**1.3**	-0.23	0.68	0.91	0.59	**1.3**
46C-GW8	1	1.50	1.50	1.62	0.85	**1.8**	1.33	1.35	1.47	0.84	**1.8**
49-GW12	1	0.79	0.88	1.10	0.90	**1.0**	0.78	0.88	1.09	0.91	**1.0**
49-GW14	1	-0.05	0.61	0.75	0.86	**1.0**	-0.05	0.59	0.73	0.87	**1.0**
49-GW15	1	3.41	3.41	3.50	0.52	**2.8**	3.31	3.31	3.41	0.51	**2.8**
49L-GW1	1	0.48	0.83	1.00	0.78	**1.0**	0.26	0.71	0.94	0.77	**1.0**
HF1_G	1	-4.01	4.25	5.84	0.20	**3.0**	-4.25	4.41	5.96	0.28	**3.0**
HF2_G	1	-0.08	0.94	1.14	0.68	**1.3**	-0.32	1.08	1.28	0.72	**1.5**
HF3_G	1	2.67	2.69	3.30	0.80	**2.5**	2.27	2.32	2.69	0.80	**2.5**
HF4_G	1	-1.07	1.54	1.96	0.58	**2.0**	-1.39	1.80	2.22	0.61	**2.0**
HF7_G	1	-1.25	1.63	2.01	0.51	**2.0**	-1.40	1.70	2.09	0.57	**2.0**

Table B5. Statistical parameters and level of performance at shallow groundwater wells (computational layers 1 and 2) south of the Caloosahatchee River and outside the DR/GR Area. The green color indicates the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

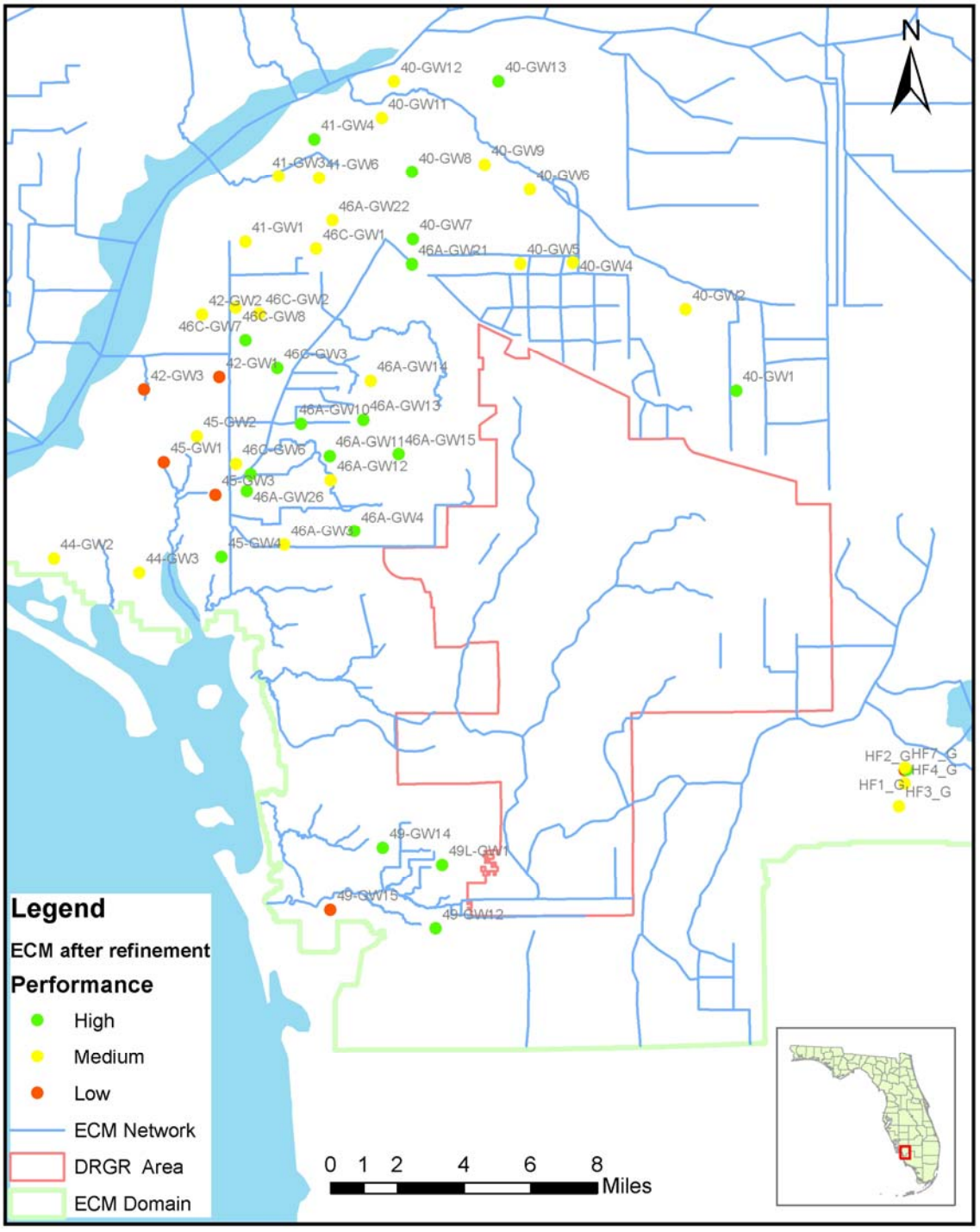
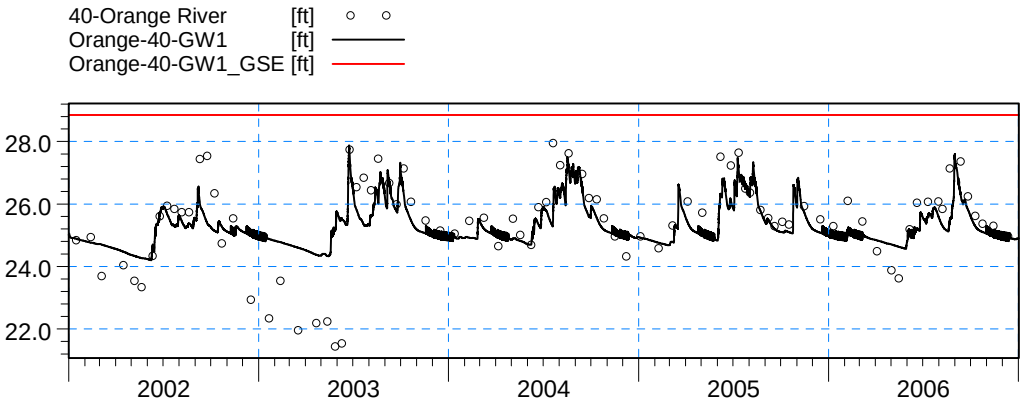
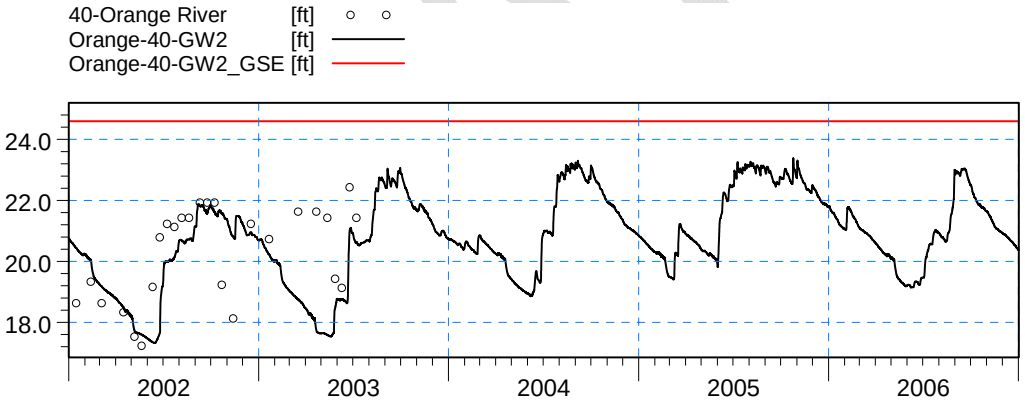


Figure B50. Average performance level at shallow groundwater monitoring wells south of the Caloosahatchee River, after the refinement process.

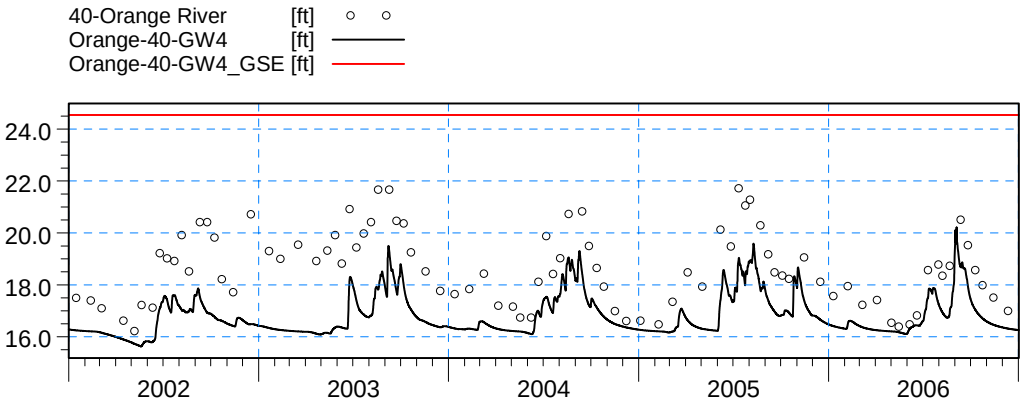


ME=0.0970131
MAE=0.725545
RMSE=1.0569
STDres=1.05243
R(Correlation)=0.721884
R2(Nash_Sutcliffe)=0.444446

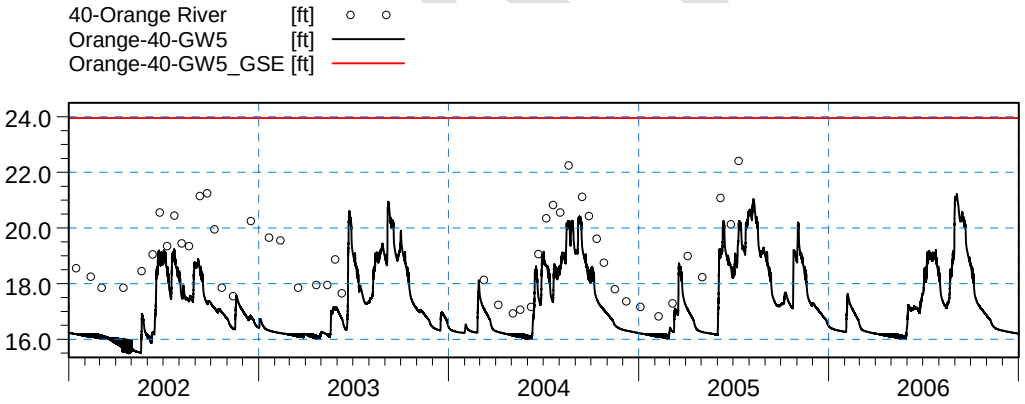


ME=0.594592
MAE=1.28016
RMSE=1.71354
STDres=1.60707
R(Correlation)=0.420508
R2(Nash_Sutcliffe)=-0.256598

Figure B51. Groundwater elevation at wells 40-GW1 and 40-GW2, after refinement.

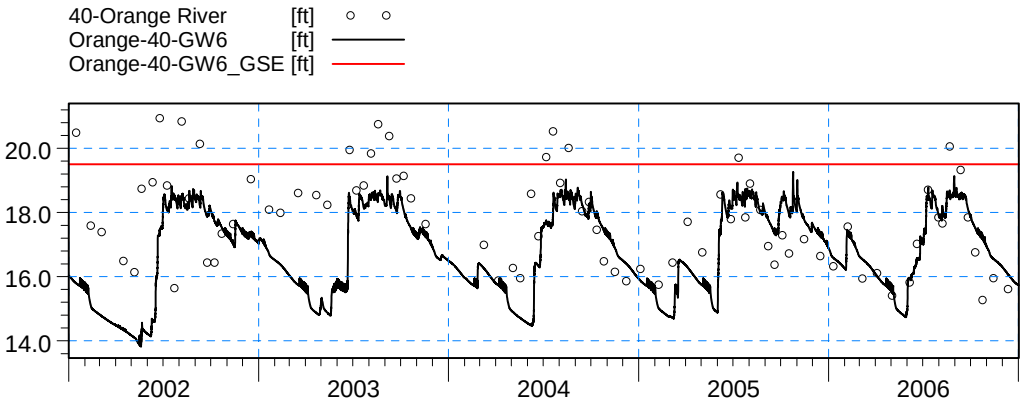


ME=1.75012
MAE=1.75012
RMSE=1.97403
STDres=0.91318
R(Correlation)=0.799139
R2(Nash_Sutcliffe)=-0.957346

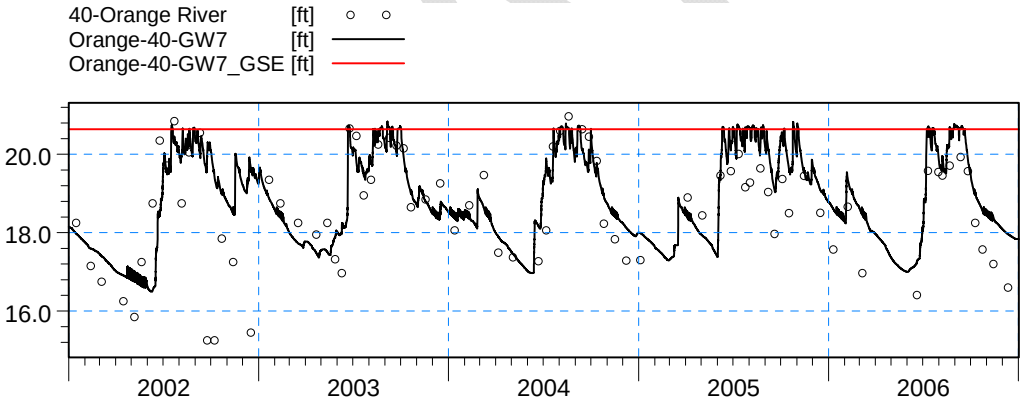


ME=1.85734
MAE=1.85734
RMSE=2.01195
STDres=0.773446
R(Correlation)=0.850649
R2(Nash_Sutcliffe)=-0.896539

Figure B52. Groundwater elevation at wells 40-GW4 and 40-GW5, after refinement.

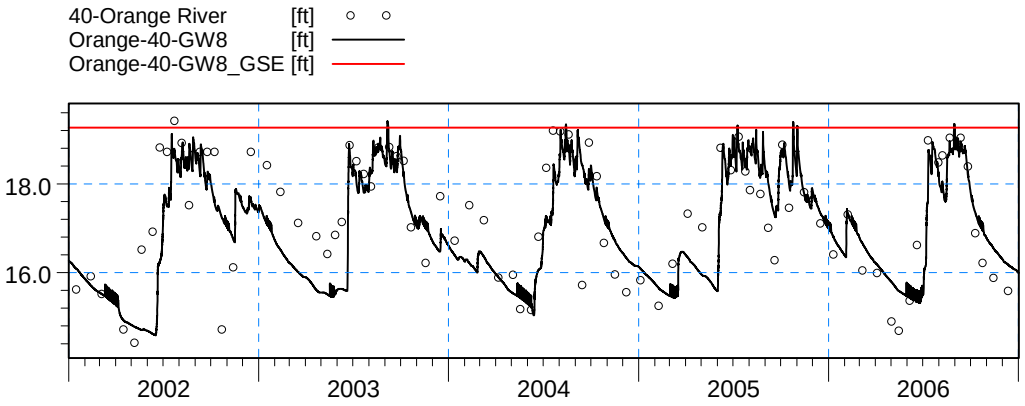


ME=0.766656
MAE=1.2815
RMSE=1.68055
STDres=1.49549
R(Correlation)=0.438428
R2(Nash_Sutcliffe)=-0.287443

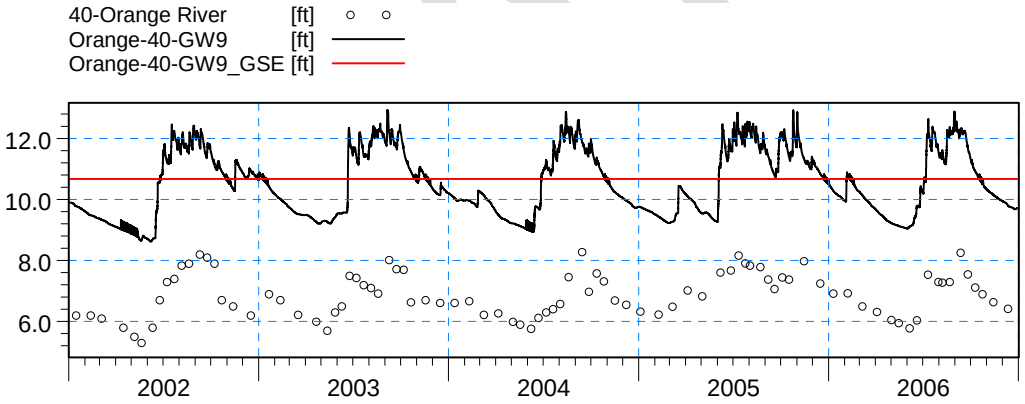


ME=-0.4608
MAE=0.819389
RMSE=1.16169
STDres=1.06639
R(Correlation)=0.660026
R2(Nash_Sutcliffe)=0.304081

Figure B53. Groundwater elevation at wells 40-GW6 and 40-GW7, after refinement.

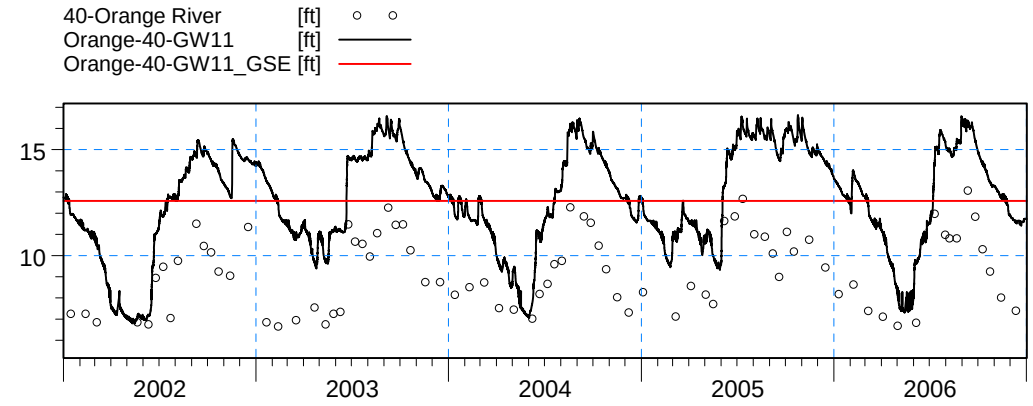


ME=0.195342
MAE=0.710861
RMSE=0.918747
STDres=0.89774
R(Correlation)=0.760933
R2(Nash_Sutcliffe)=0.540251

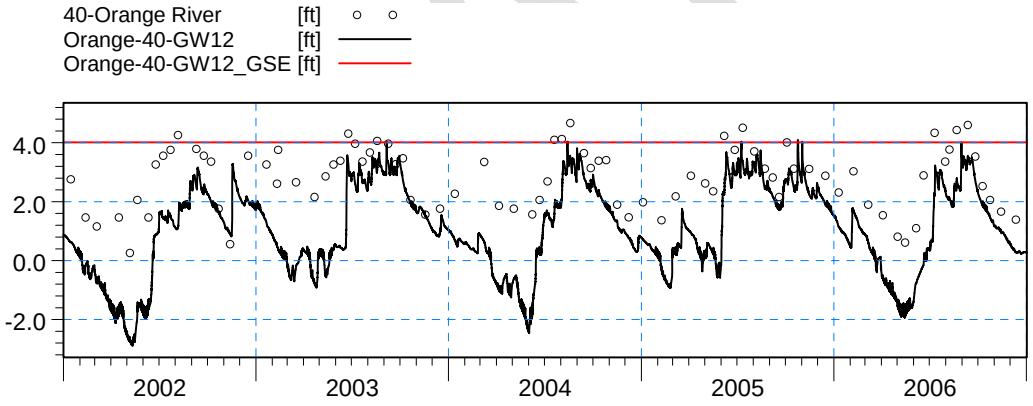


ME=-3.78591
MAE=3.78591
RMSE=3.83151
STDres=0.589347
R(Correlation)=0.861901
R2(Nash_Sutcliffe)=-27.07

Figure B54. Groundwater elevation at wells 40-GW8 and 40-GW9, after refinement.

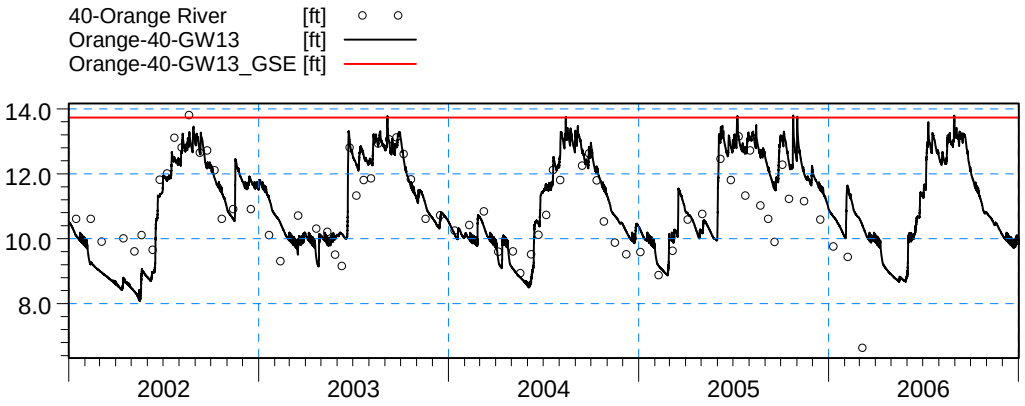


ME=-3.76369
MAE=3.76369
RMSE=3.96251
STDres=1.23941
R(Correlation)=0.847367
R2(Nash_Sutcliffe)=-3.85296

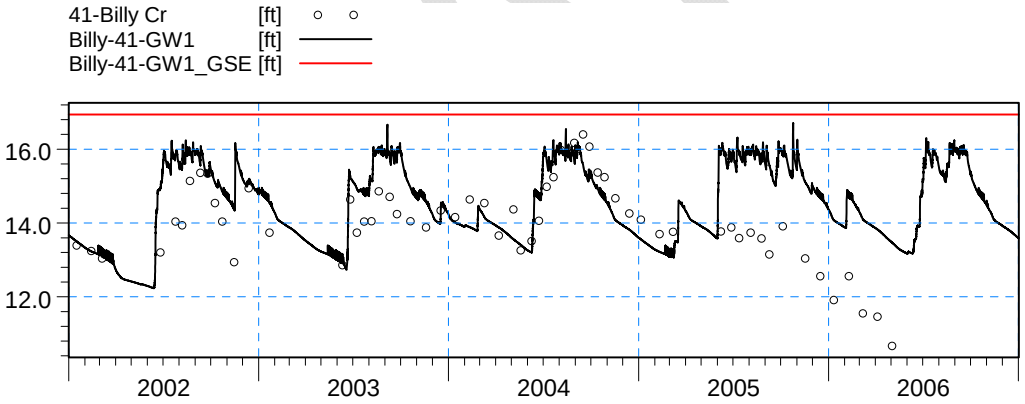


ME=1.58829
MAE=1.59612
RMSE=1.84348
STDres=0.935816
R(Correlation)=0.779382
R2(Nash_Sutcliffe)=-2.03272

Figure B55. Groundwater elevation at wells 40-GW11 and 40-GW12, after refinement.

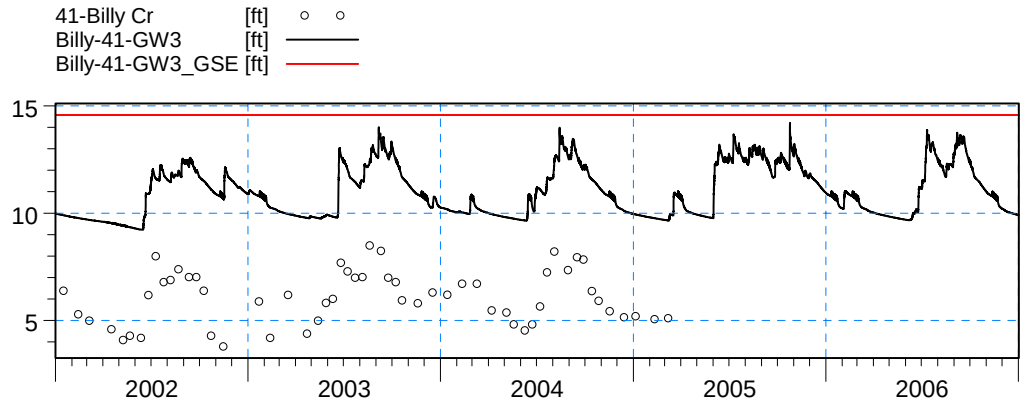


ME=-0.218566
MAE=0.688701
RMSE=0.897239
STDres=0.870211
R(Correlation)=0.798248
R2(Nash_Sutcliffe)=0.554485

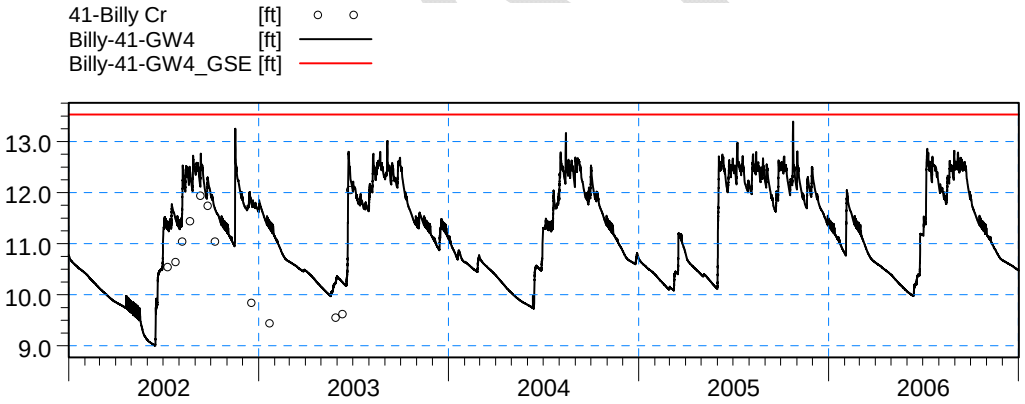


ME=-0.753259
MAE=1.01346
RMSE=1.27476
STDres=1.02841
R(Correlation)=0.499287
R2(Nash_Sutcliffe)=-0.353491

Figure B56. Groundwater elevation at wells 40-GW13 and 41-GW1, after refinement.

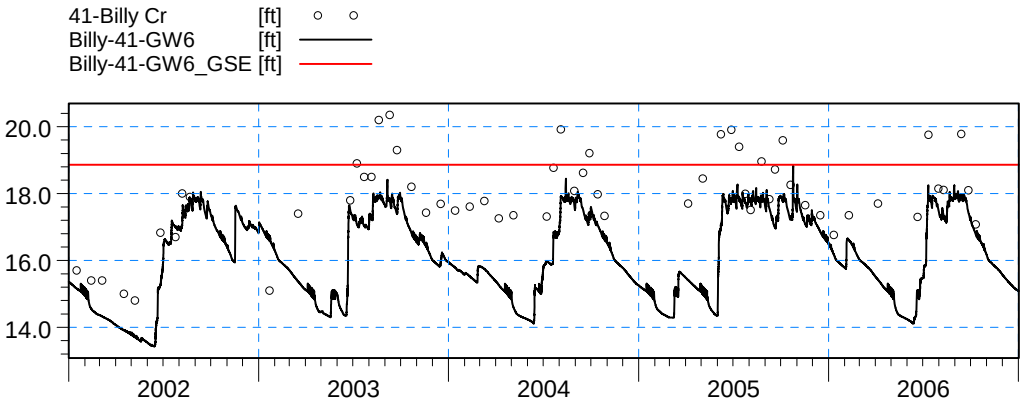


ME=-4.81316
MAE=4.81316
RMSE=4.86666
STDres=0.719614
R(Correlation)=0.811224
R2(Nash_Sutcliffe)=-15.0153

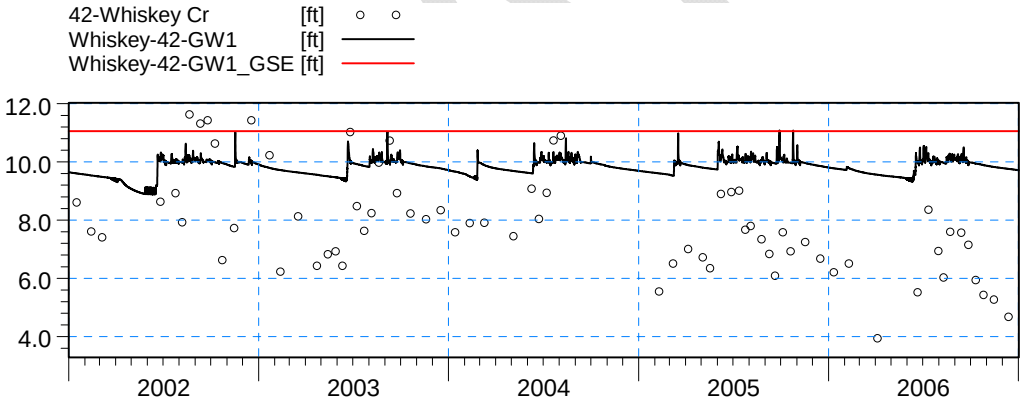


ME=-0.846577
MAE=0.846577
RMSE=1.00153
STDres=0.53514
R(Correlation)=0.812151
R2(Nash_Sutcliffe)=-0.198097

Figure B57. Groundwater elevation at wells 41-GW3 and 41-GW4, after refinement.

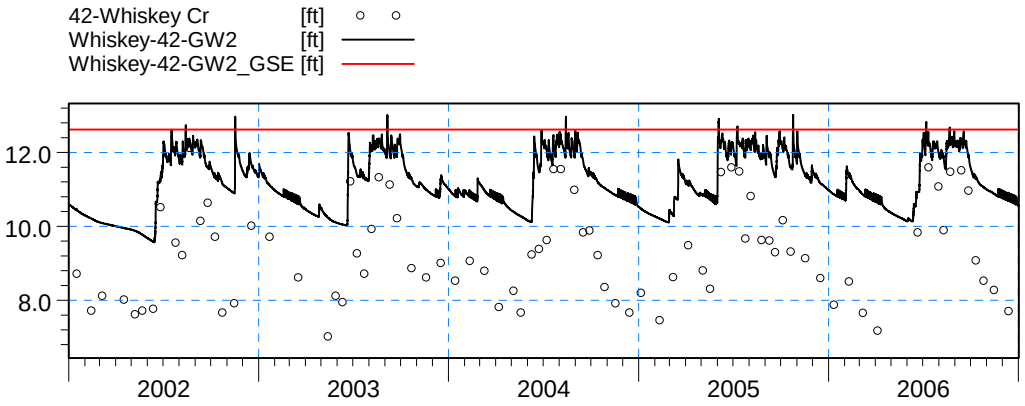


ME=1.28614
MAE=1.35425
RMSE=1.54834
STDres=0.862087
R(Correlation)=0.745799
R2(Nash_Sutcliffe)=-0.502367

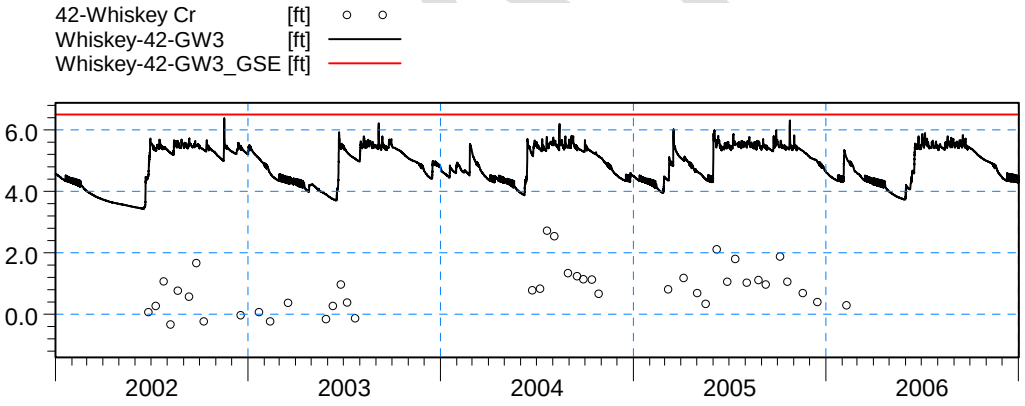


ME=-2.00816
MAE=2.27182
RMSE=2.56678
STDres=1.59864
R(Correlation)=0.464516
R2(Nash_Sutcliffe)=-1.31713

Figure B58. Groundwater elevation at wells 41-GW6 and 42-GW1, after refinement.

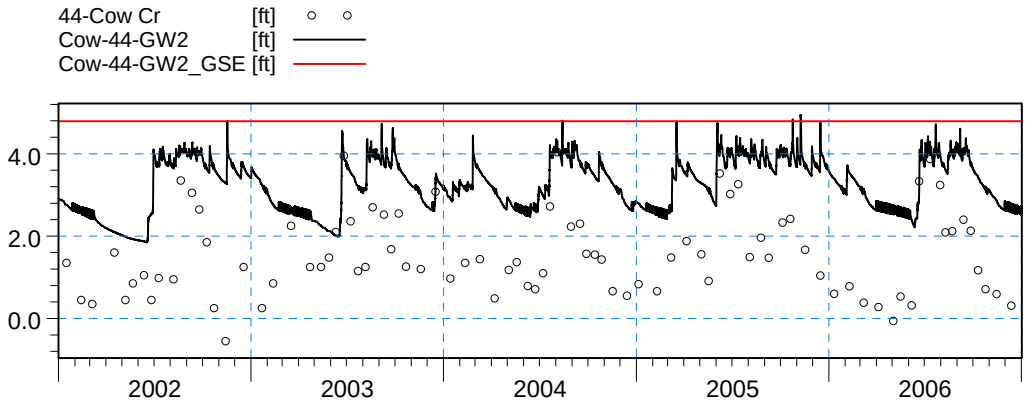


ME=-1.95297
MAE=1.95297
RMSE=2.09184
STDres=0.749462
R(Correlation)=0.863806
R2(Nash_Sutcliffe)=-1.62941

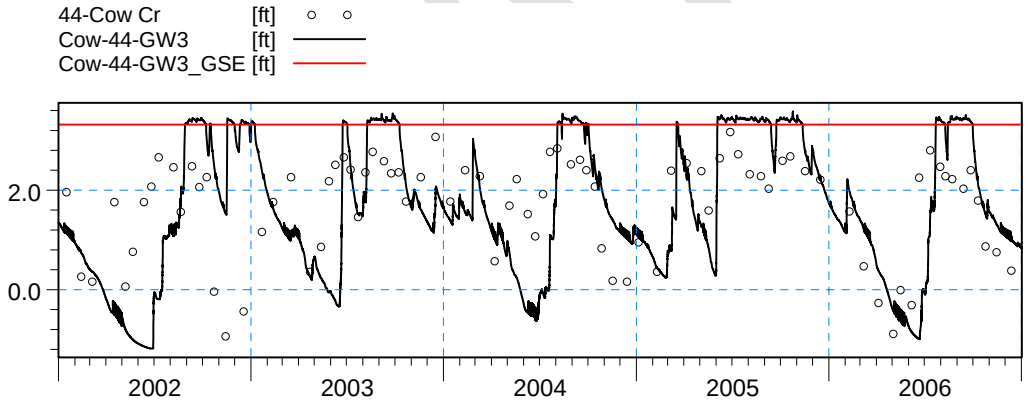


ME=-4.3535
MAE=4.3535
RMSE=4.39468
STDres=0.600233
R(Correlation)=0.542103
R2(Nash_Sutcliffe)=-37.5883

Figure B59. Groundwater elevation at wells 42-GW2 and 42-GW3, after refinement.

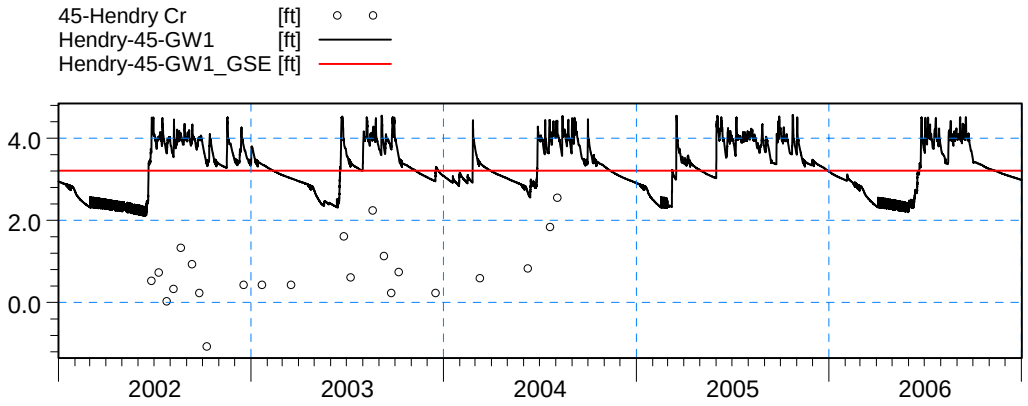


ME=-1.74899
MAE=1.75844
RMSE=1.92622
STDres=0.807058
R(Correlation)=0.58604
R2(Nash_Sutcliffe)=-2.75715

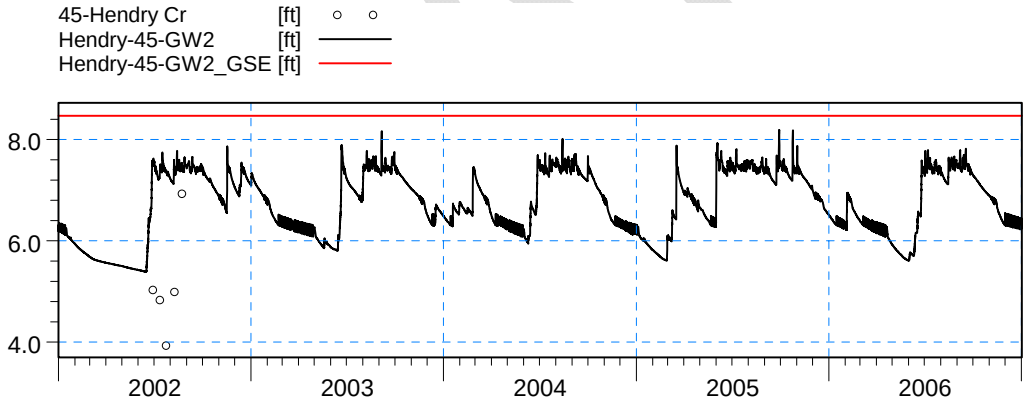


ME=0.0246863
MAE=1.031
RMSE=1.3038
STDres=1.30357
R(Correlation)=0.461829
R2(Nash_Sutcliffe)=-0.73173

Figure B60. Groundwater elevation at wells 44-GW2 and 44-GW3, after refinement.

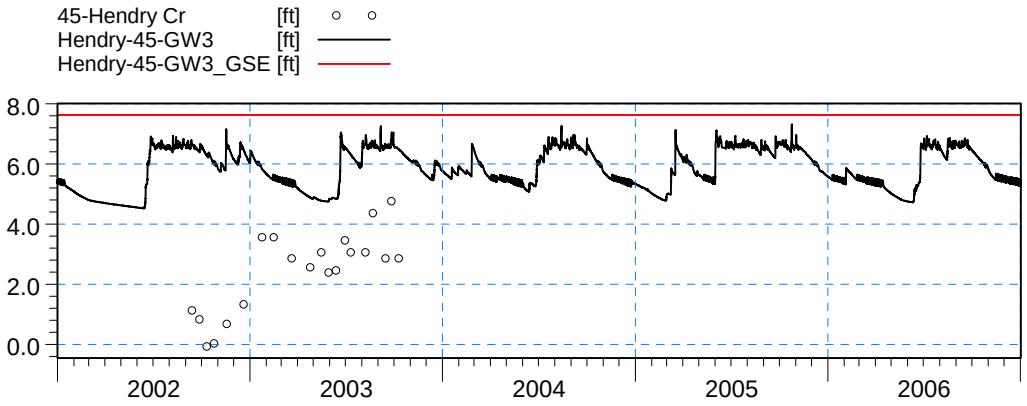


ME=-2.92173
MAE=2.92173
RMSE=2.98725
STDres=0.62221
R(Correlation)=0.593932
R2(Nash_Sutcliffe)=-13.9649

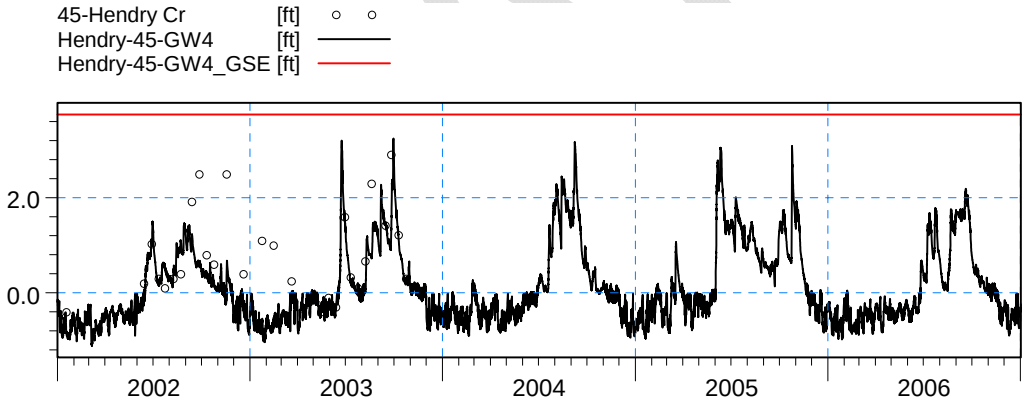


ME=-2.26259
MAE=2.26259
RMSE=2.44067
STDres=0.91517
R(Correlation)=0.676543
R2(Nash_Sutcliffe)=-5.20653

Figure B61. Groundwater elevation at wells 45-GW1 and 45-GW2, after refinement.

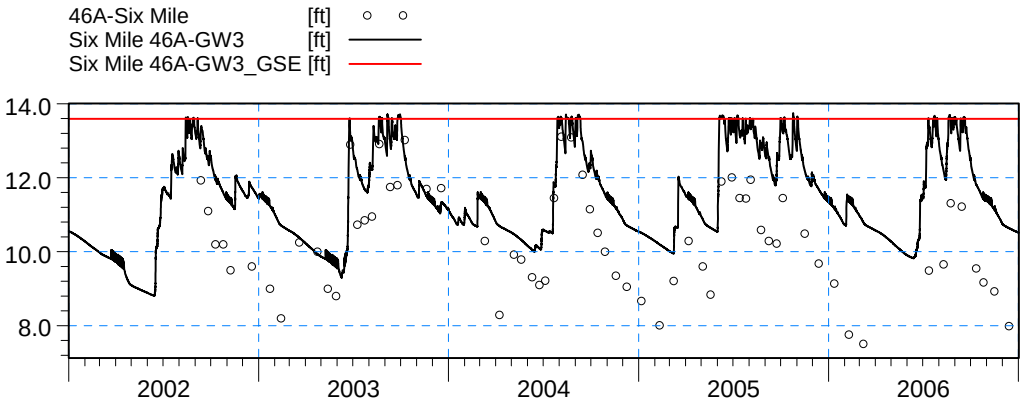


ME=-3.60361
MAE=3.60361
RMSE=3.91534
STDres=1.53098
R(Correlation)=-0.0422623
R2(Nash_Sutcliffe)=-7.74402

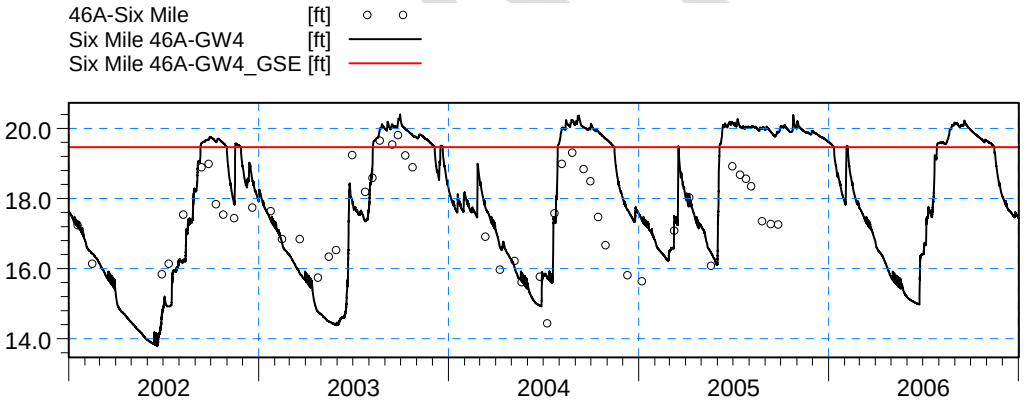


ME=0.474629
MAE=0.579963
RMSE=0.841582
STDres=0.694973
R(Correlation)=0.647108
R2(Nash_Sutcliffe)=0.137659

Figure B62. Groundwater elevation at wells 45-GW3 and 45-GW4, after refinement.

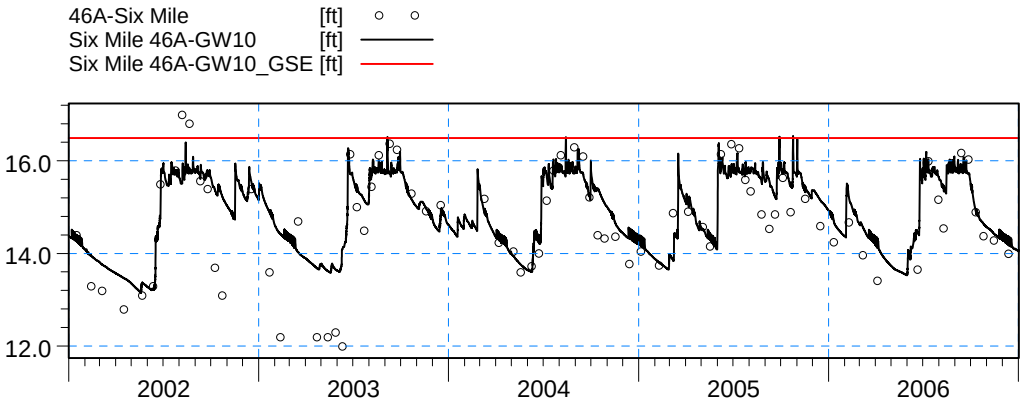


ME=-1.48393
MAE=1.54095
RMSE=1.74337
STDres=0.915035
R(Correlation)=0.76008
R2(Nash_Sutcliffe)=-0.548263

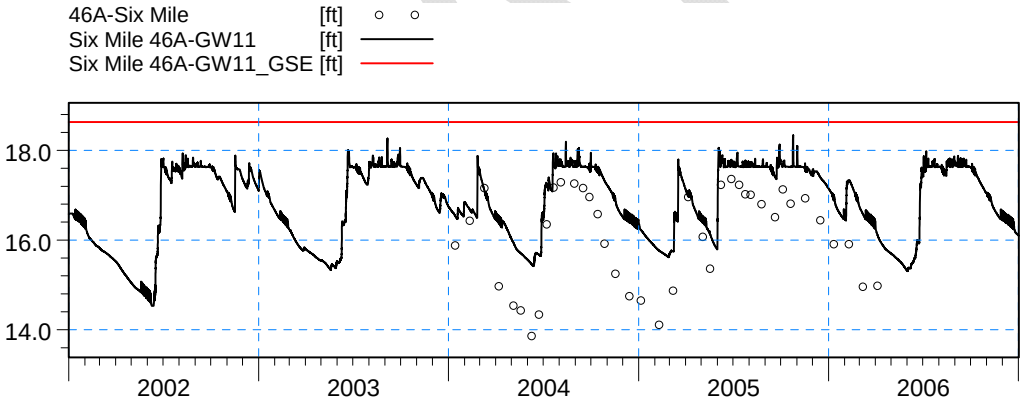


ME=-0.401571
MAE=1.1083
RMSE=1.35197
STDres=1.29095
R(Correlation)=0.74141
R2(Nash_Sutcliffe)=-0.0769052

Figure B63. Groundwater elevation at wells 46A-GW3 and 46A-GW4, after refinement.

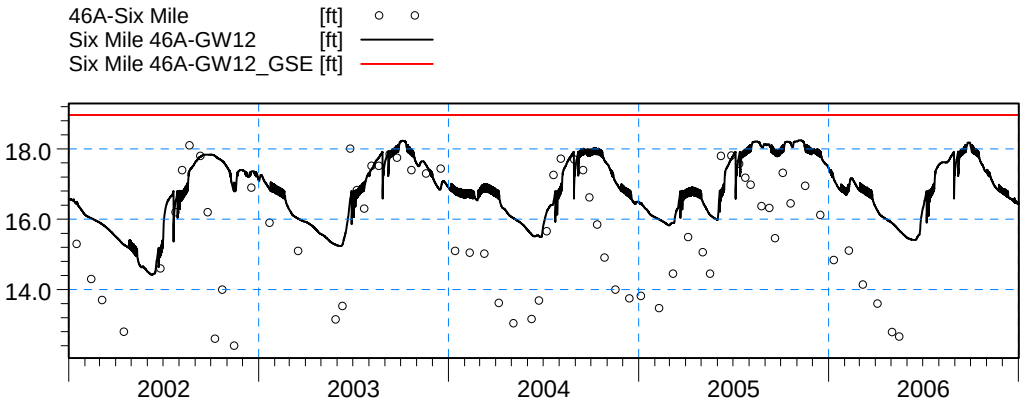


ME=-0.257998
MAE=0.539414
RMSE=0.728037
STDres=0.68079
R(Correlation)=0.823544
R2(Nash_Sutcliffe)=0.60551

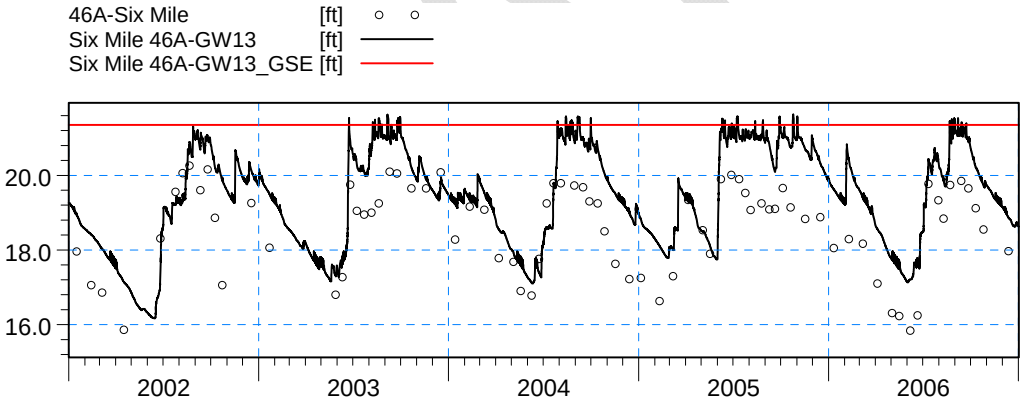


ME=-0.90648
MAE=0.908536
RMSE=1.02146
STDres=0.470824
R(Correlation)=0.930029
R2(Nash_Sutcliffe)=0.0921497

Figure B64. Groundwater elevation at wells 46A-GW10 and 46A-GW11, after refinement.

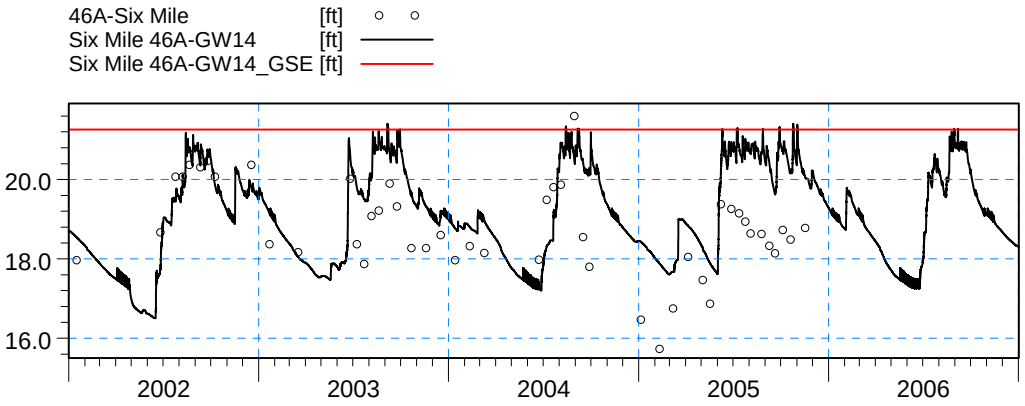


ME=-1.31227
MAE=1.5173
RMSE=1.87722
STDres=1.34235
R(Correlation)=0.625454
R2(Nash_Sutcliffe)=-0.219742

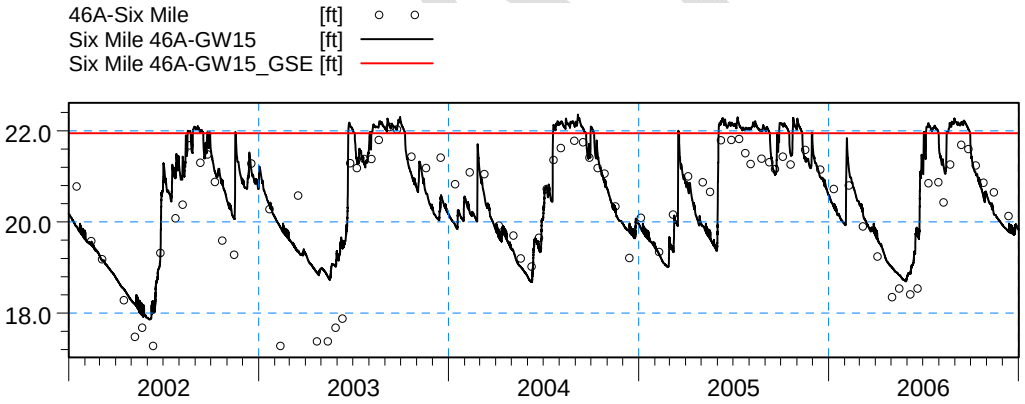


ME=-1.01279
MAE=1.10192
RMSE=1.23162
STDres=0.700824
R(Correlation)=0.838718
R2(Nash_Sutcliffe)=-0.0809184

Figure B65. Groundwater elevation at wells 46A-GW12 and 46A-GW13, after refinement.

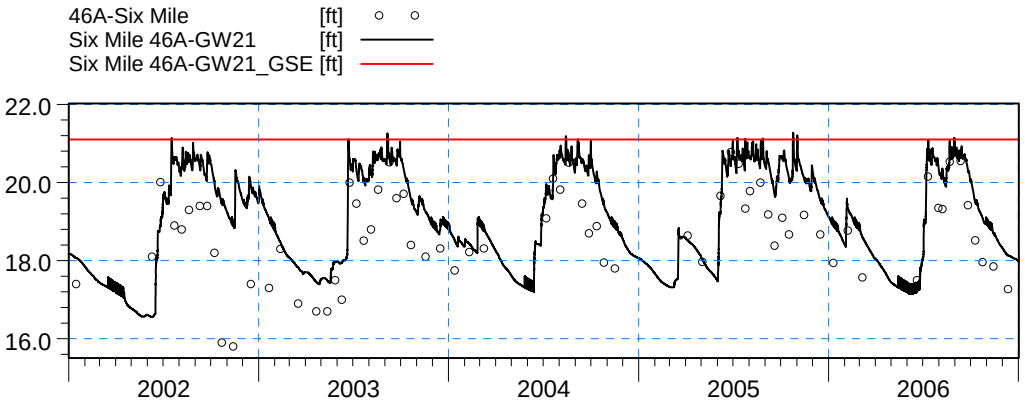


ME=-0.82252
MAE=1.09958
RMSE=1.2644
STDres=0.960301
R(Correlation)=0.606887
R2(Nash_Sutcliffe)=-0.267538

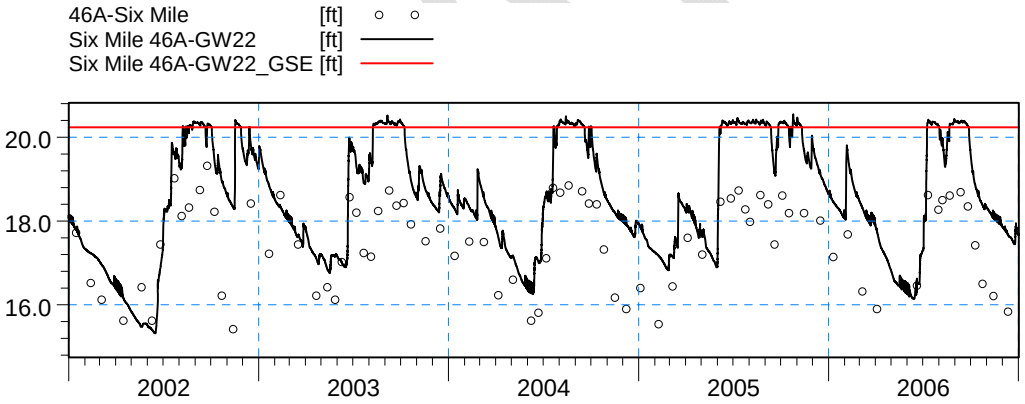


ME=-0.240236
MAE=0.54608
RMSE=0.699668
STDres=0.657132
R(Correlation)=0.865684
R2(Nash_Sutcliffe)=0.711119

Figure B66. Groundwater elevation at wells 46A-GW14 and 46A-GW15, after refinement.

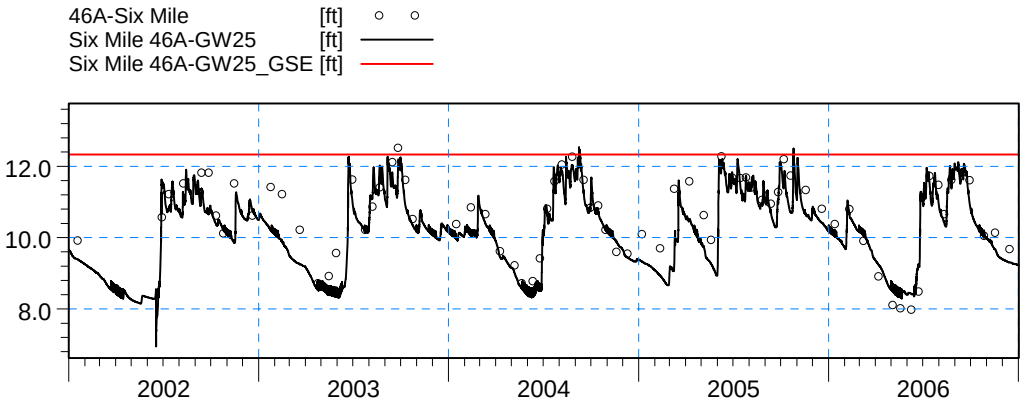


ME=-0.886511
MAE=0.999504
RMSE=1.18369
STDres=0.784358
R(Correlation)=0.74948
R2(Nash_Sutcliffe)=-0.0968449

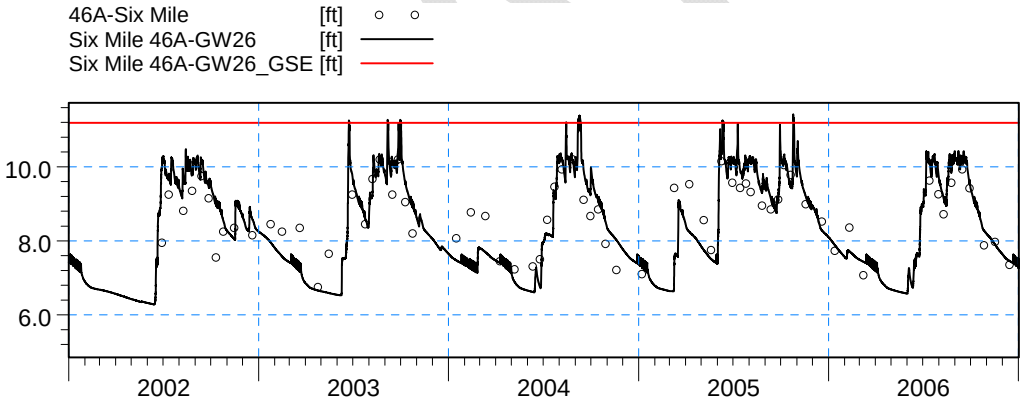


ME=-1.29467
MAE=1.34213
RMSE=1.48184
STDres=0.720896
R(Correlation)=0.844312
R2(Nash_Sutcliffe)=-0.989442

Figure B67. Groundwater elevation at wells 46A-GW21 and 46A-GW22, after refinement.

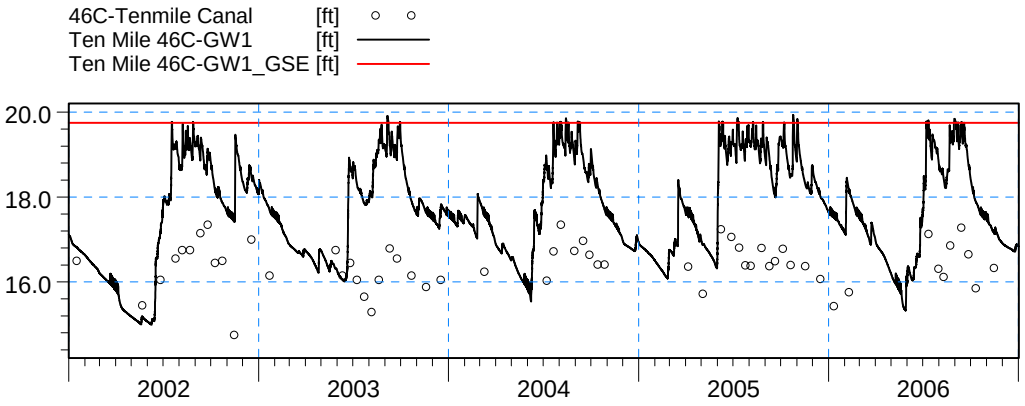


ME=0.327495
MAE=0.467464
RMSE=0.614234
STDres=0.519644
R(Correlation)=0.880553
R2(Nash_Sutcliffe)=0.677969

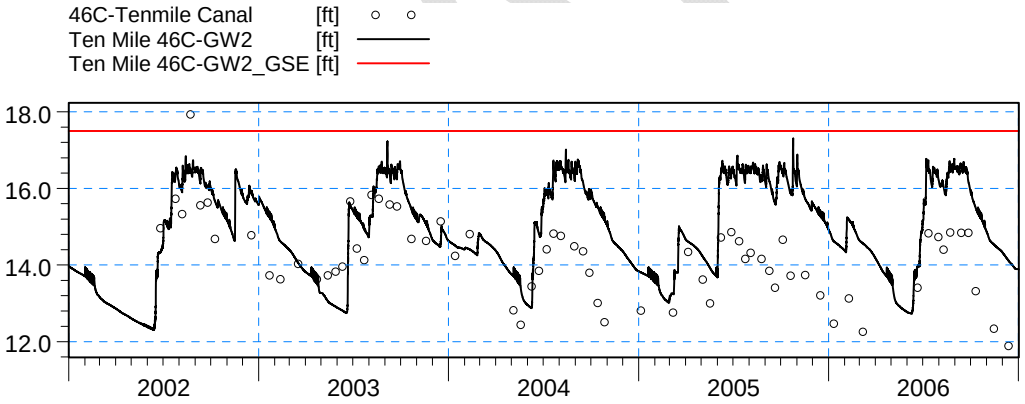


ME=-0.102396
MAE=0.539394
RMSE=0.693022
STDres=0.685415
R(Correlation)=0.796653
R2(Nash_Sutcliffe)=0.375777

Figure B68. Groundwater elevation at wells 46A-GW25 and 46A-GW26, after refinement.

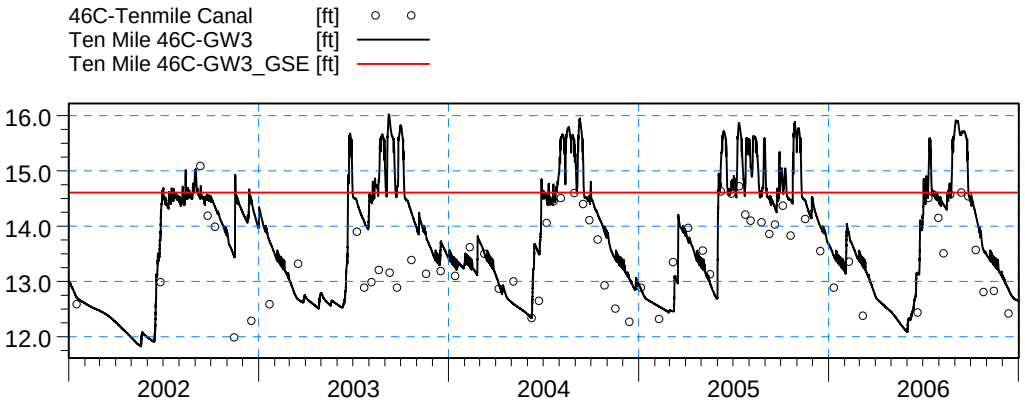


ME=-1.9572
MAE=1.98343
RMSE=2.09975
STDres=0.760458
R(Correlation)=0.601877
R2(Nash_Sutcliffe)=-15.5542

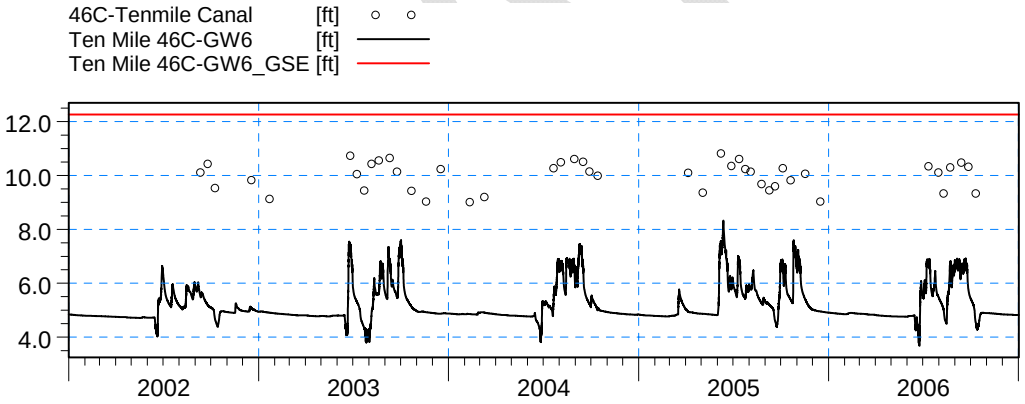


ME=-1.06983
MAE=1.26567
RMSE=1.45689
STDres=0.988927
R(Correlation)=0.571981
R2(Nash_Sutcliffe)=-0.925717

Figure B69. Groundwater elevation at wells 46C-GW1 and 46C-GW2, after refinement.

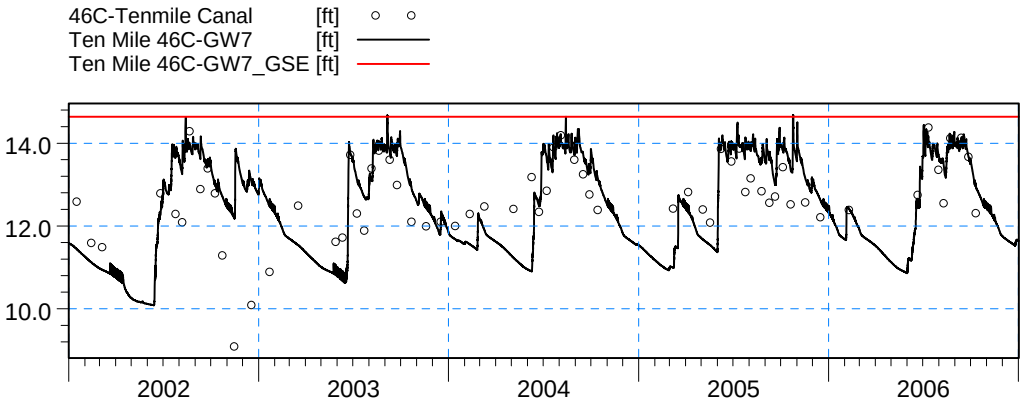


ME=-0.538996
MAE=0.64063
RMSE=0.811377
STDres=0.606478
R(Correlation)=0.720363
R2(Nash_Sutcliffe)=-0.121817

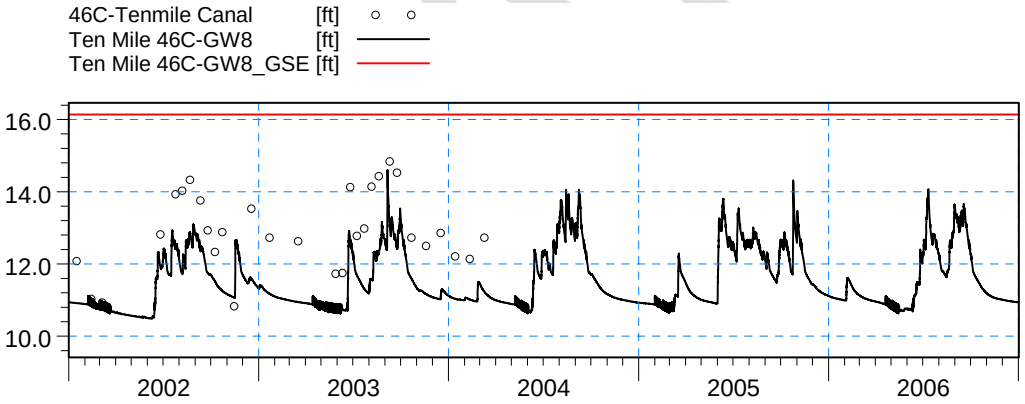


ME=4.45294
MAE=4.45294
RMSE=4.48236
STDres=0.512706
R(Correlation)=0.751076
R2(Nash_Sutcliffe)=-76.0102

Figure B70. Groundwater elevation at wells 46C-GW3 and 46C-GW6, after refinement.

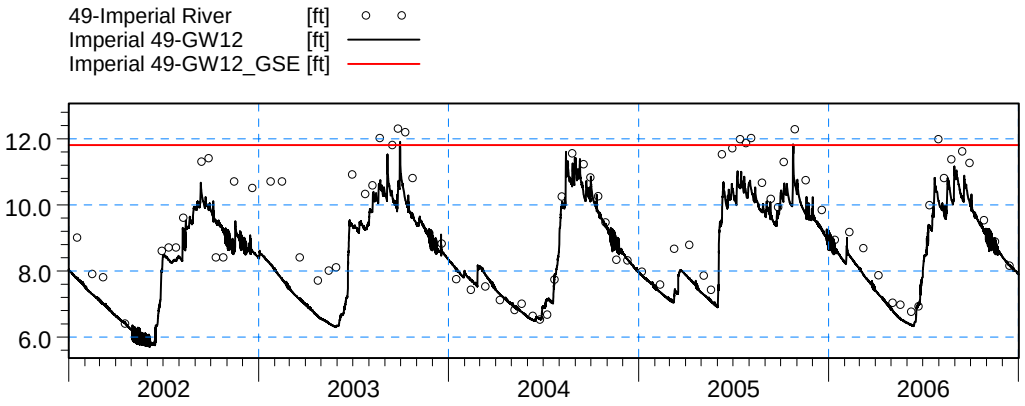


ME=-0.231465
MAE=0.682992
RMSE=0.910235
STDres=0.880313
R(Correlation)=0.591169
R2(Nash_Sutcliffe)=0.0643849

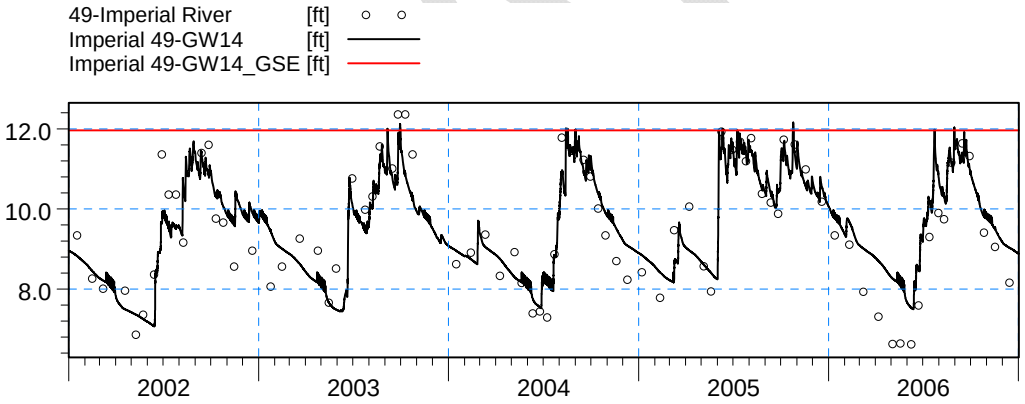


ME=1.33505
MAE=1.35153
RMSE=1.46781
STDres=0.61001
R(Correlation)=0.844035
R2(Nash_Sutcliffe)=-0.963631

Figure B71. Groundwater elevation at wells 46C-GW7 and 46C-GW8, after refinement.

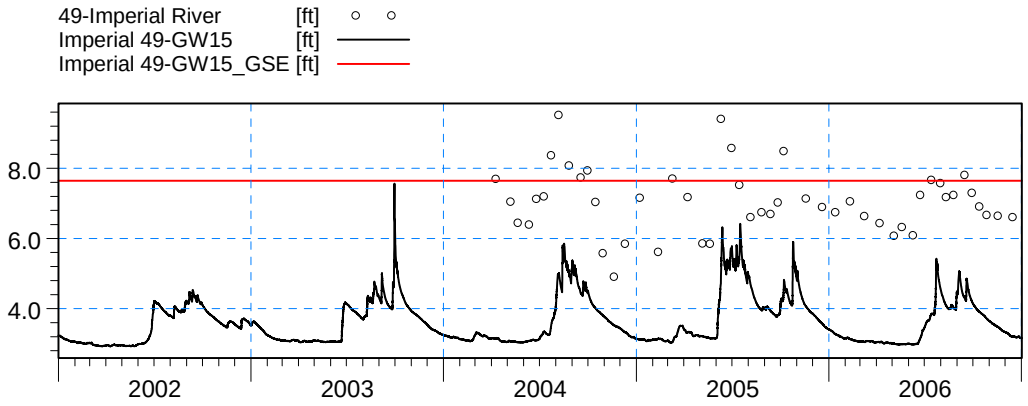


ME=0.779275
MAE=0.875505
RMSE=1.08619
STDres=0.75666
R(Correlation)=0.906089
R2(Nash_Sutcliffe)=0.597558

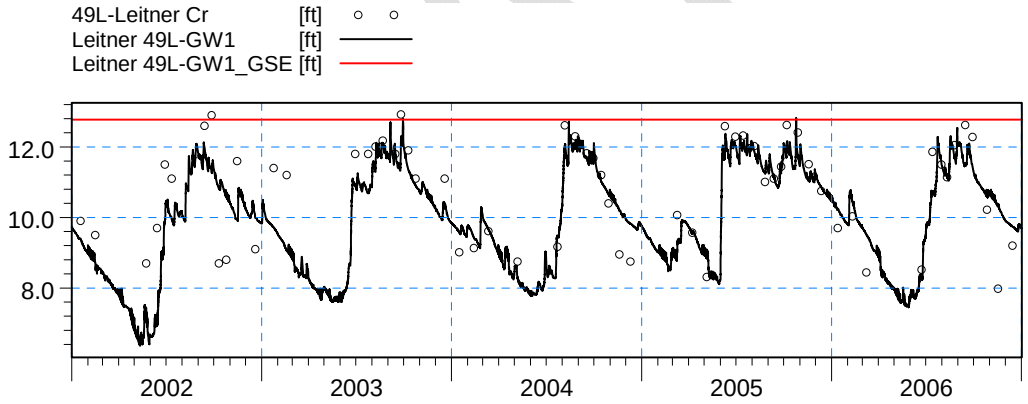


ME=-0.0530742
MAE=0.594875
RMSE=0.731879
STDres=0.729952
R(Correlation)=0.873514
R2(Nash_Sutcliffe)=0.760731

Figure B72. Groundwater elevation at wells 49-GW12 and 49-GW14, after refinement.

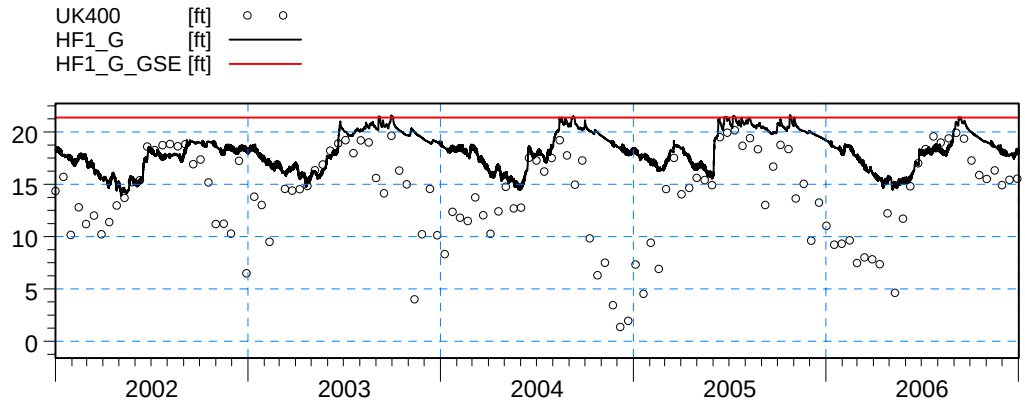


ME=3.31189
MAE=3.31189
RMSE=3.40843
STDres=0.805495
R(Correlation)=0.514041
R2(Nash_Sutcliffe)=-13.3098

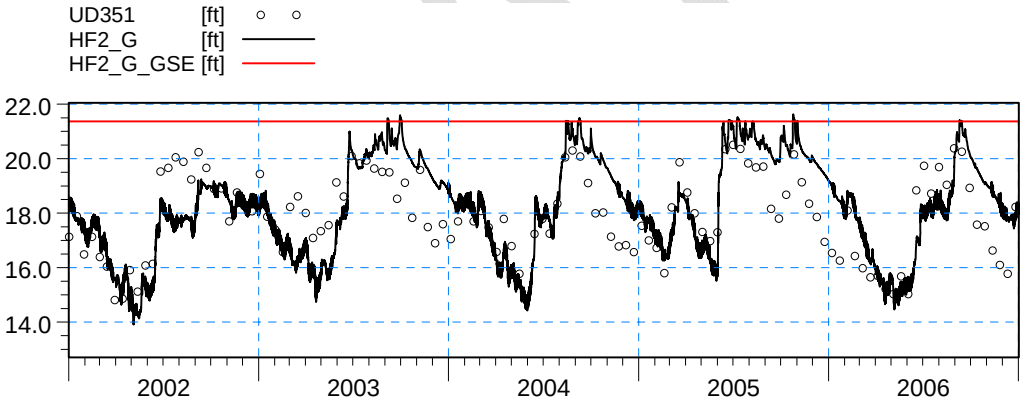


ME=0.260104
MAE=0.712718
RMSE=0.935974
STDres=0.899107
R(Correlation)=0.765503
R2(Nash_Sutcliffe)=0.544875

Figure B73. Groundwater elevation at wells 49-GW15 and 49L-GW1, after refinement.

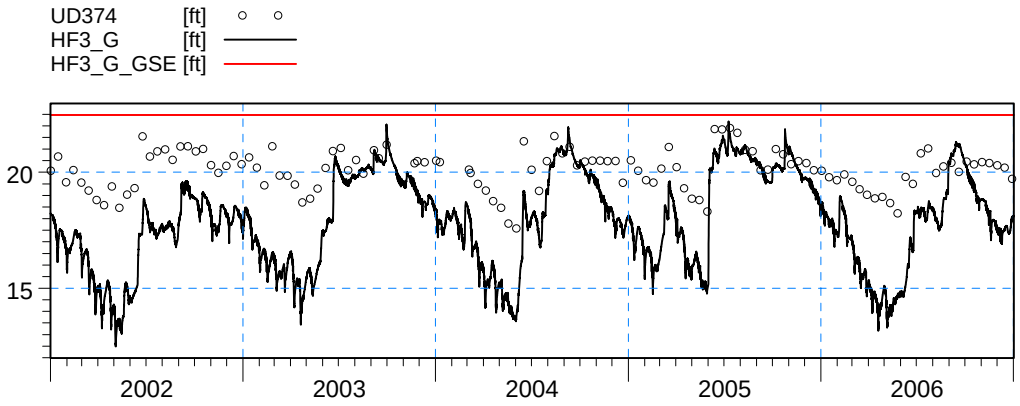


ME=-4.24882
MAE=4.40602
RMSE=5.95789
STDres=4.17659
R(Correlation)=0.278698
R2(Nash_Sutcliffe)=-0.910331

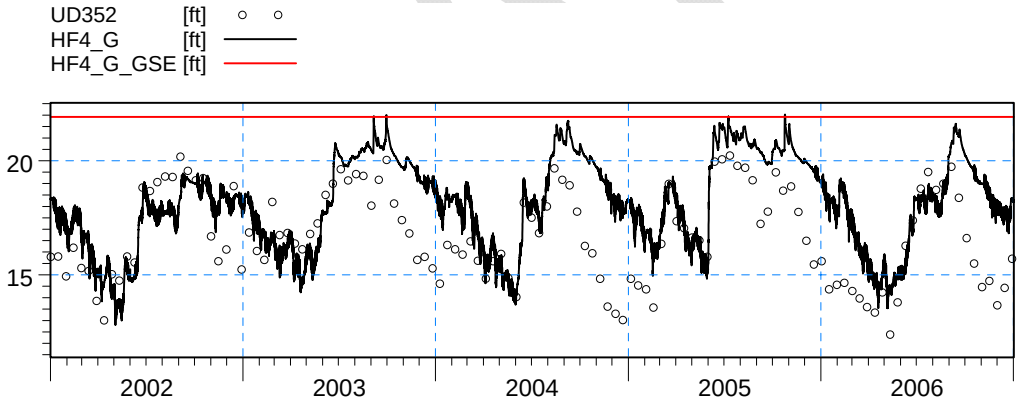


ME=-0.319254
MAE=1.07897
RMSE=1.2784
STDres=1.2379
R(Correlation)=0.718473
R2(Nash_Sutcliffe)=0.26918

Figure B74. Groundwater elevation at wells HF1_G and HF2_G, after refinement.

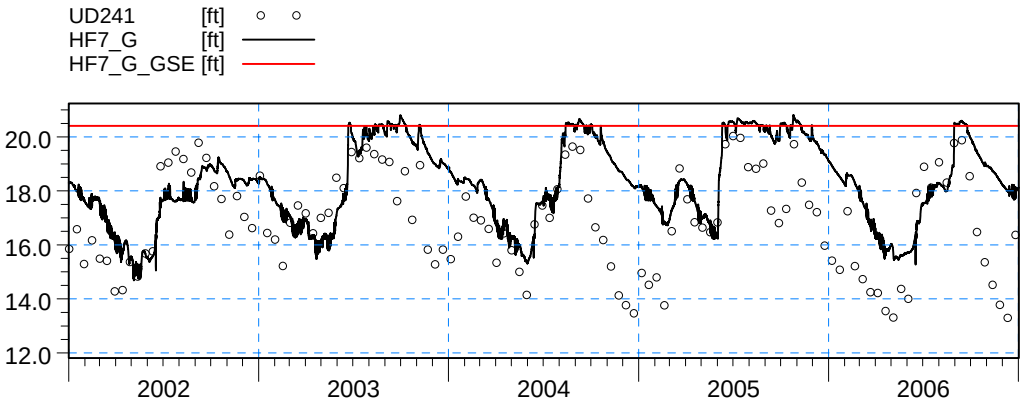


ME=2.27391
MAE=2.31589
RMSE=2.69184
STDres=1.44061
R(Correlation)=0.800416
R2(Nash_Sutcliffe)=-8.95032



ME=-1.38548
MAE=1.79728
RMSE=2.22017
STDres=1.73481
R(Correlation)=0.614308
R2(Nash_Sutcliffe)=-0.226536

Figure B75. Groundwater elevation at wells HF3_G and HF4_G, after refinement.



ME=-1.39891
MAE=1.69827
RMSE=2.08854
STDres=1.55082
R(Correlation)=0.574852
R2(Nash_Sutcliffe)=-0.335487

Figure B76. Groundwater elevation at well HF7_G, after refinement.

Appendix B5. Surface water stations north from Caloosahatchee

	before refinement					after refinement				
Station Name	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
Caloosahatchee_53534	0.75	0.90	1.19	0.40	**2.0**	0.75	0.90	1.19	0.40	**2.0**
Courtney Q_7500	---	---	---	0.47	**3.0**	---	---	---	0.46	**3.0**
Gator Slough Q_5910	---	---	---	0.86	**1.0**	---	---	---	0.70	**2.0**
Gator Slough_5850	1.04	1.46	1.63	0.87	**1.8**	0.50	1.66	1.88	0.84	**1.8**
Hermosa Q_12500	---	---	---	0.65	**2.0**	---	---	---	0.65	**2.0**
Horseshoe Q_13230	---	---	---	0.55	**3.0**	---	---	---	0.57	**3.0**
Meade Q_2470	---	---	---	0.55	**3.0**	---	---	---	0.57	**3.0**
Powell Creek_4976	-0.93	1.15	1.46	0.46	**2.3**	-1.03	1.18	1.49	0.45	**2.3**
S-78 TW	-0.21	0.36	0.51	0.34	**1.5**	-0.23	0.31	0.44	0.39	**1.5**
S-79 HW	0.13	0.21	0.31	-0.1	**1.5**	0.09	0.18	0.21	0.06	**1.5**
S-79 TW	0.13	0.44	0.56	0.60	**1.3**	0.15	0.42	0.54	0.60	**1.5**
S-79 Q	---	---	---	0.96	**1.0**	---	---	---	0.96	**1.0**
San Carlos Q_4510	---	---	---	0.46	**3.0**	---	---	---	0.46	**3.0**
Telegraph Creek_24691	0.66	0.85	0.97	0.58	**1.8**	0.69	0.83	0.94	0.58	**1.8**

Table B6. Statistical parameters and level of performance at surface water stations north of the Caloosahatchee River. The green color indicates the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

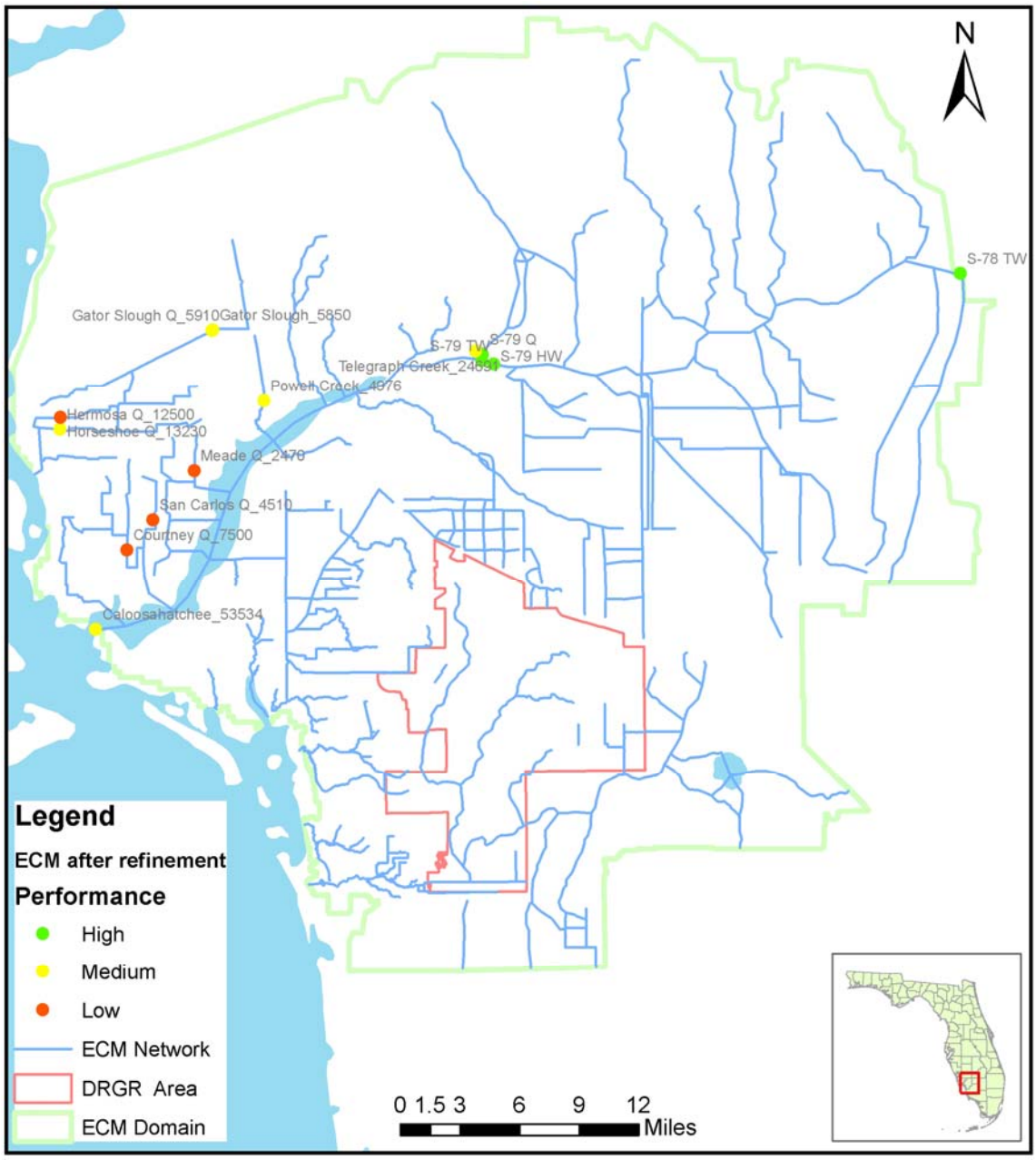
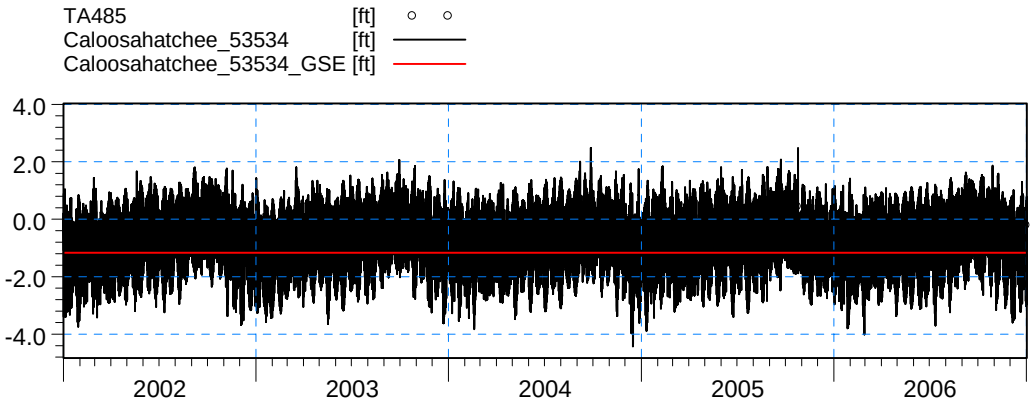
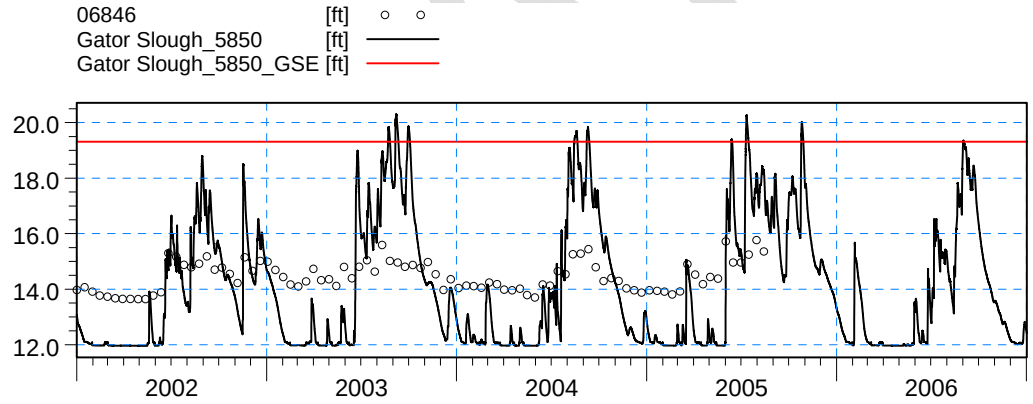


Figure B77. Average performance level at surface water monitoring stations north of the Caloosahatchee River, after the refinement process.

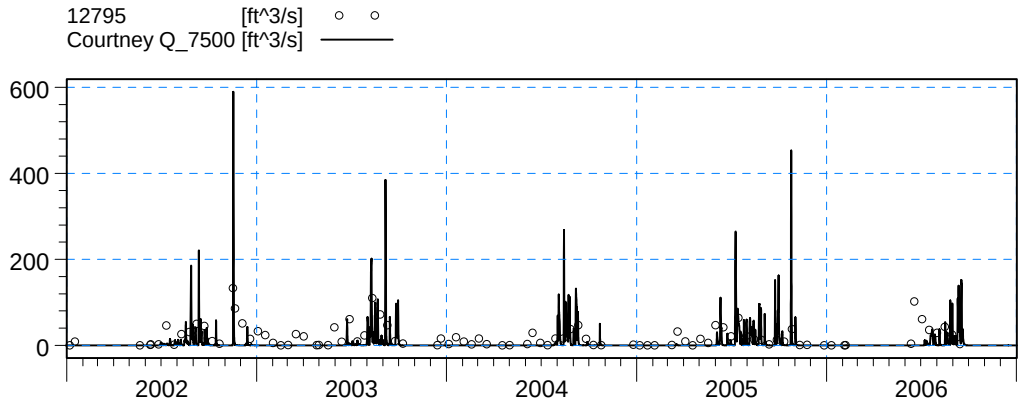


ME=0.751086
MAE=0.900596
RMSE=1.19164
STDres=0.925142
R(Correlation)=0.399058
R2(Nash_Sutcliffe)=-9.50492

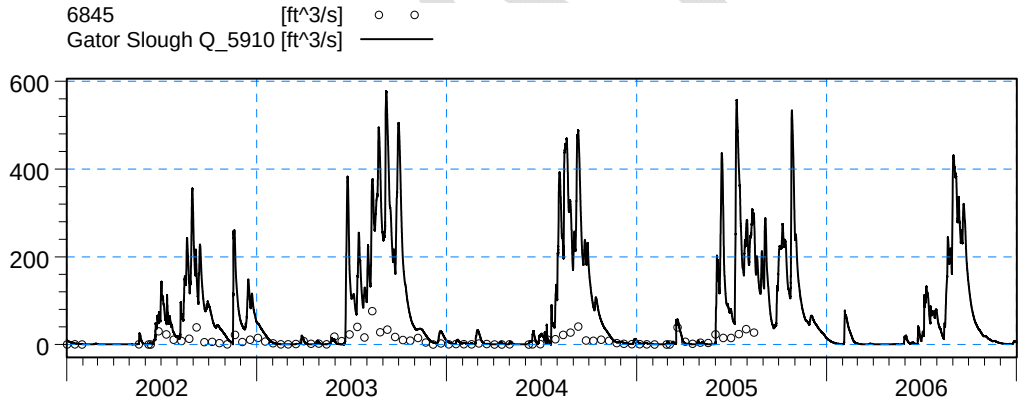


ME=0.497645
MAE=1.66397
RMSE=1.88178
STDres=1.81478
R(Correlation)=0.838796
R2(Nash_Sutcliffe)=-9.71579

Figure B78. Stage at stations Caloosahatchee_53534 and Gator Slough_5850, after refinement.

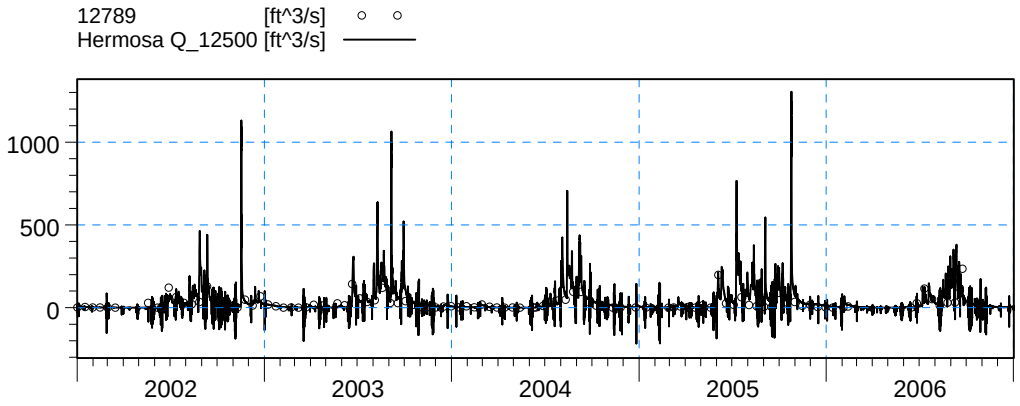


ME=15.2694
MAE=20.6338
RMSE=32.3936
STDres=28.5691
R(Correlation)=0.464605
R2(Nash_Sutcliffe)=-0.417753

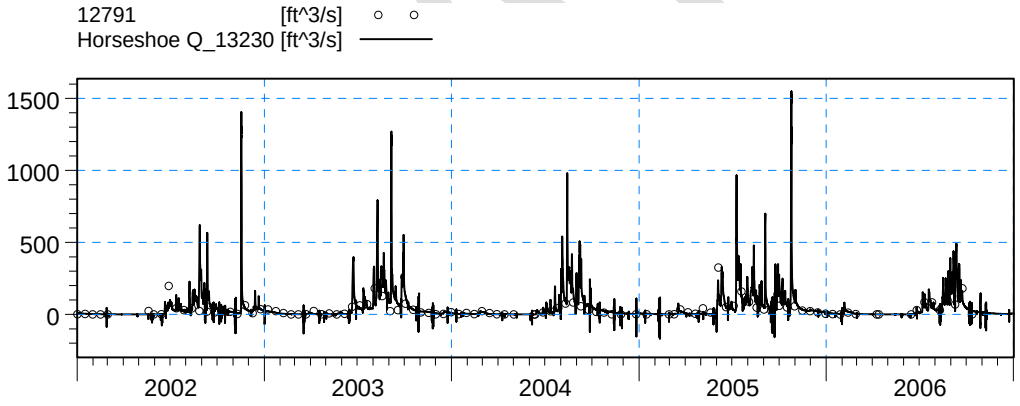


ME=-65.6357
MAE=66.5523
RMSE=122.748
STDres=103.725
R(Correlation)=0.703295
R2(Nash_Sutcliffe)=-44.6406

Figure B79. Flow at stations Courtney Q_7500 and Gator Slough Q_5910, after refinement.

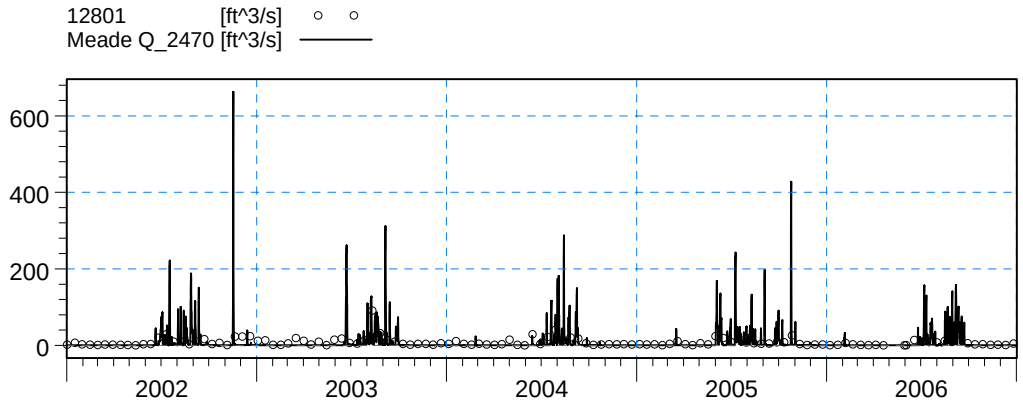


ME=-17.7096
MAE=30.712
RMSE=61.0575
STDres=58.4328
R(Correlation)=0.650188
R2(Nash_Sutcliffe)=-0.44612

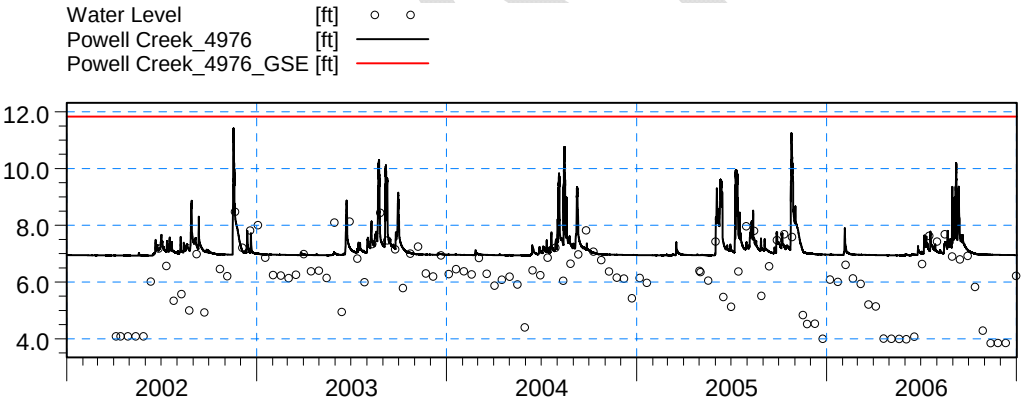


ME=-15.5498
MAE=33.2818
RMSE=78.5746
STDres=77.0206
R(Correlation)=0.573977
R2(Nash_Sutcliffe)=-0.924459

Figure B80. Flow at stations at Hermosa Q_12500 and Horseshoe Q_13230, after refinement.

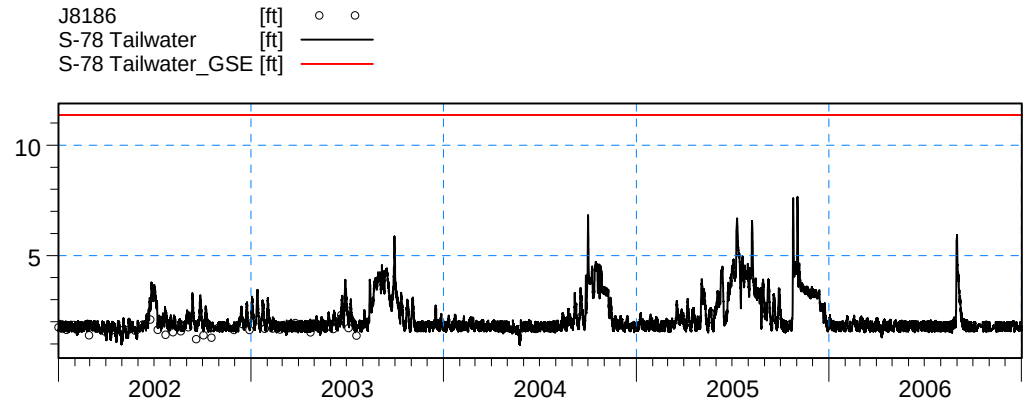


ME=3.02135
MAE=8.51831
RMSE=19.3577
STDres=19.1205
R(Correlation)=0.569295
R2(Nash_Sutcliffe)=-0.411272

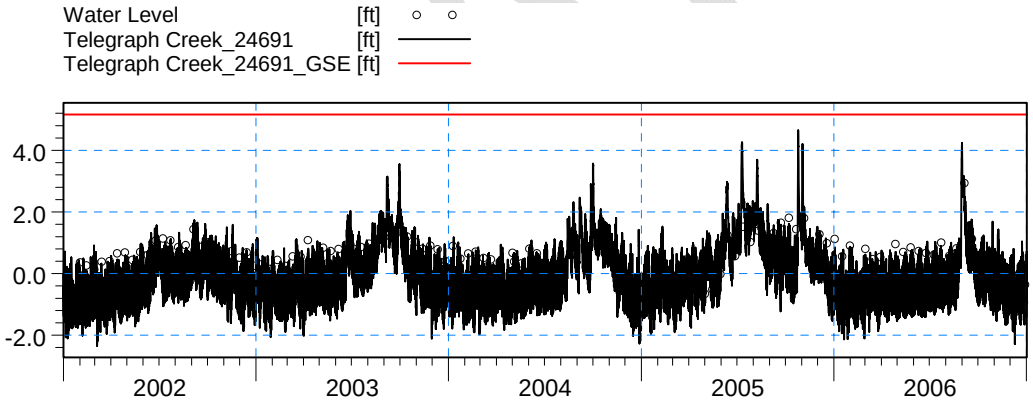


ME=-1.02907
MAE=1.18173
RMSE=1.49121
STDres=1.07922
R(Correlation)=0.452534
R2(Nash_Sutcliffe)=-0.527292

Figure B81. Flow at station and Meade Q_2470 and stage at Powell Creek_4976, after refinement.

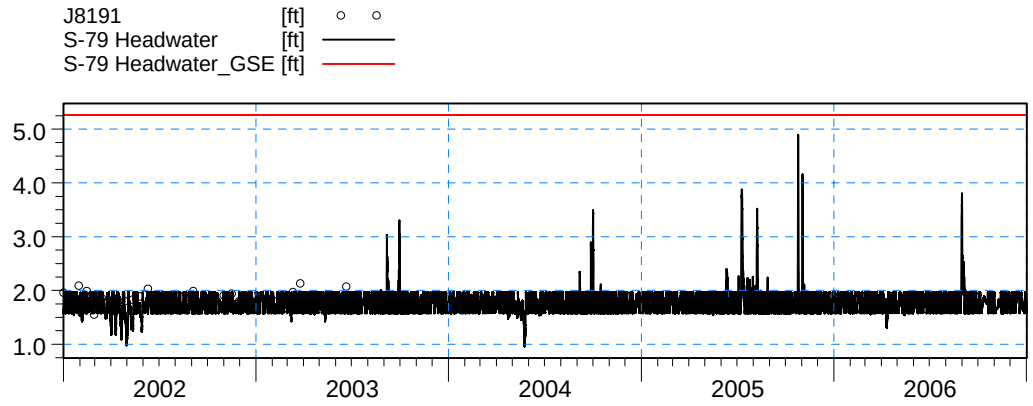


ME=-0.234332
MAE=0.30766
RMSE=0.438125
STDres=0.370192
R(Correlation)=0.38914
R2(Nash_Sutcliffe)=-4.17044

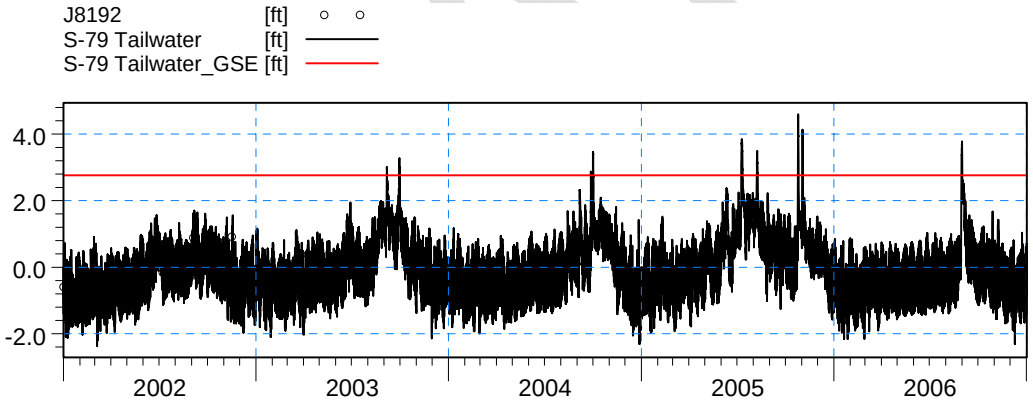


ME=0.686116
MAE=0.826173
RMSE=0.944604
STDres=0.649246
R(Correlation)=0.580349
R2(Nash_Sutcliffe)=-2.58816

Figure B82. Stage at stations S-78 TW and Telegraph Creek_24691, after refinement.

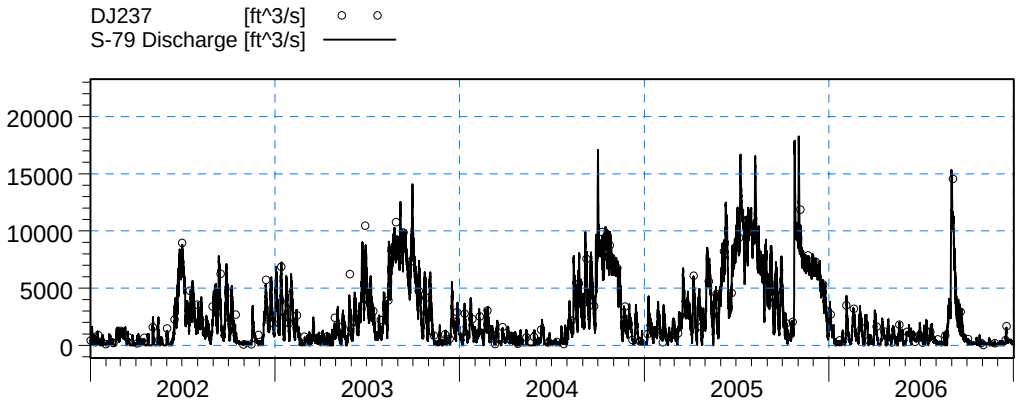


ME=0.0922963
MAE=0.175441
RMSE=0.214564
STDres=0.193698
R(Correlation)=0.0611082
R2(Nash_Sutcliffe)=-1.5251

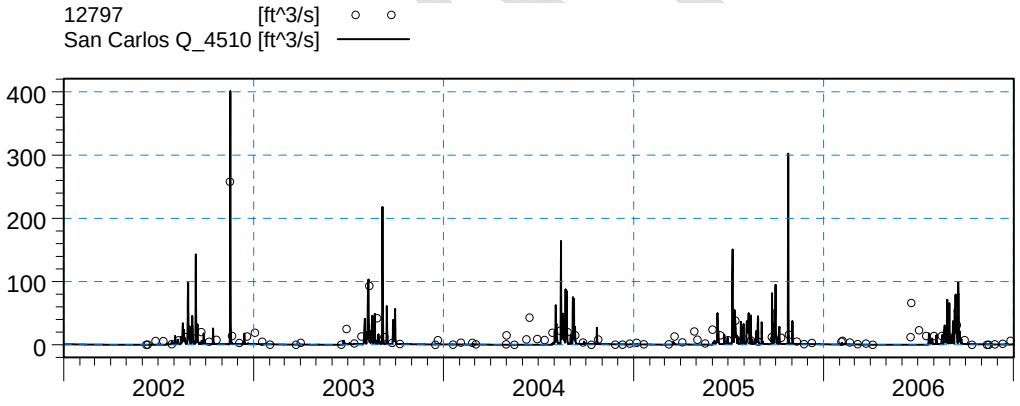


ME=0.152222
MAE=0.424678
RMSE=0.53888
STDres=0.516933
R(Correlation)=0.595187
R2(Nash_Sutcliffe)=-0.414306

Figure B83. Stage at stations S-79 HW and S-79 TW, after refinement.



ME=515.611
MAE=751.188
RMSE=1107.99
STDres=980.709
R(Correlation)=0.95818
R2(Nash_Sutcliffe)=0.892242



ME=7.81874
MAE=10.3527
RMSE=20.9372
STDres=19.4225
R(Correlation)=0.462575
R2(Nash_Sutcliffe)=0.0395667

Figure B84. Flow at stations S-79 Q and San Carlos Q_4510, after refinement.

Appendix B6. Groundwater well stations north from Caloosahatchee

	before refinement					after refinement				
Station Name	ME (ft)	MAE (ft)	RMSE (ft)	R	PL	ME (ft)	MAE (ft)	RMSE (ft)	R	PL
17-GW1	1.74	1.74	1.83	0.73	**1.8**	1.59	1.59	1.69	0.77	**1.8**
17-GW3	0.24	0.65	0.89	0.85	**1.0**	0.11	0.58	0.75	0.89	**1.0**
17-GW4	0.22	0.46	0.72	0.77	**1.0**	0.26	0.50	0.77	0.76	**1.0**
18-GW1	-1.18	1.40	1.60	0.77	**1.8**	-0.92	1.19	1.43	0.76	**1.5**
18-GW2	-3.13	3.15	3.31	0.63	**2.8**	-2.99	3.01	3.16	0.66	**2.8**
19-GW1	-2.05	2.05	2.17	0.83	**2.3**	-1.98	1.98	2.11	0.83	**1.8**
20A-GW1	-0.99	1.10	1.25	0.80	**1.3**	-1.31	1.38	1.53	0.80	**1.8**
20-GW1	-1.53	1.54	1.76	0.86	**1.8**	-1.48	1.49	1.70	0.86	**1.8**
20-GW2	-1.33	1.33	1.49	0.76	**1.8**	-1.32	1.32	1.47	0.77	**1.8**
20-GW3	-1.04	1.09	1.32	0.85	**1.8**	-0.87	0.96	1.18	0.84	**1.0**
21-GW2	-1.91	1.91	1.95	0.85	**1.8**	-1.91	1.91	1.96	0.85	**1.8**
22-GW1	-2.72	2.94	4.54	-0.03	**3.0**	-0.69	0.99	1.21	0.74	**1.0**
23-GW1	0.04	3.21	4.07	0.00	**2.5**	-2.08	2.08	2.38	0.51	**2.5**
23-GW2	-4.48	4.74	7.39	0.58	**2.8**	-0.03	0.46	0.62	0.65	**1.3**
24-GW1	-0.80	1.14	1.50	0.60	**1.8**	-0.75	1.12	1.46	0.61	**1.8**
24-GW2	-0.06	0.87	1.06	0.78	**1.0**	-0.01	0.83	1.01	0.79	**1.0**
26-GW1	-5.34	5.34	5.38	0.75	**2.5**	-5.59	5.59	5.63	0.69	**2.8**
26-GW2	1.25	1.30	1.72	0.74	**1.8**	0.15	0.93	1.23	0.72	**1.0**
27O-GW1	0.30	0.84	1.00	0.66	**1.3**	0.45	0.90	1.12	0.61	**1.3**
27-GW1	-0.59	0.72	0.87	0.74	**1.0**	-0.07	0.69	0.87	0.72	**1.0**
27-GW2	0.18	0.89	1.20	0.40	**1.5**	-0.01	1.08	1.33	0.40	**2.0**
28-GW1	3.08	3.08	3.32	0.63	**2.8**	3.68	3.68	3.95	0.59	**2.8**
28-GW2	-0.27	0.84	1.04	0.71	**1.0**	0.14	1.01	1.26	0.65	**1.8**
29-GW1	-1.97	2.19	2.73	0.01	**2.8**	-3.36	3.36	3.59	0.40	**3.0**
29-GW2	-0.37	0.66	0.91	0.83	**1.0**	2.12	2.26	2.70	0.61	**2.8**
5-GW4	-2.78	2.81	3.11	0.32	**3.0**	-2.64	2.69	2.99	0.34	**3.0**
5-GW5	-2.20	2.20	2.34	0.57	**2.5**	-2.11	2.11	2.23	0.67	**2.5**
5-GW6	-0.66	1.10	1.41	-0.25	**2.0**	-0.46	1.00	1.26	0.17	**2.0**
5-GW8	-1.99	2.01	2.27	0.69	**2.3**	-1.72	1.75	2.04	0.65	**2.0**
MUSEWELLS	-4.02	4.64	6.40	-0.35	**3.0**	-4.74	5.29	7.01	-0.31	**3.0**

Table B7. Statistical parameters and level of performance at groundwater monitoring wells north of the Caloosahatchee River. The green color indicates the highest performance level (1.0, 1.2 and 1.5), yellow for medium (1.8, 2.0, 2.3, 2.5) and orange for low (2.8, 3.0).

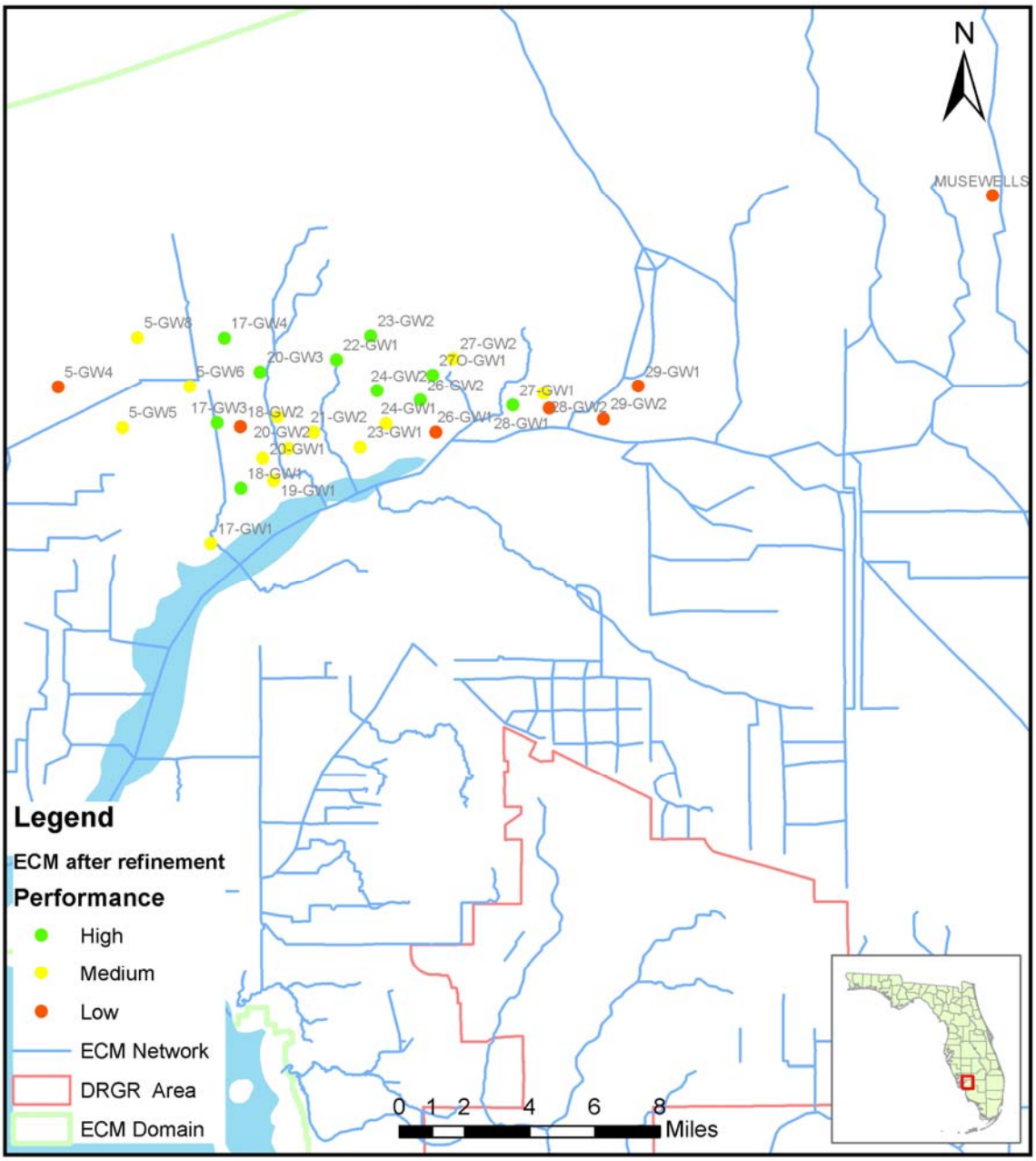
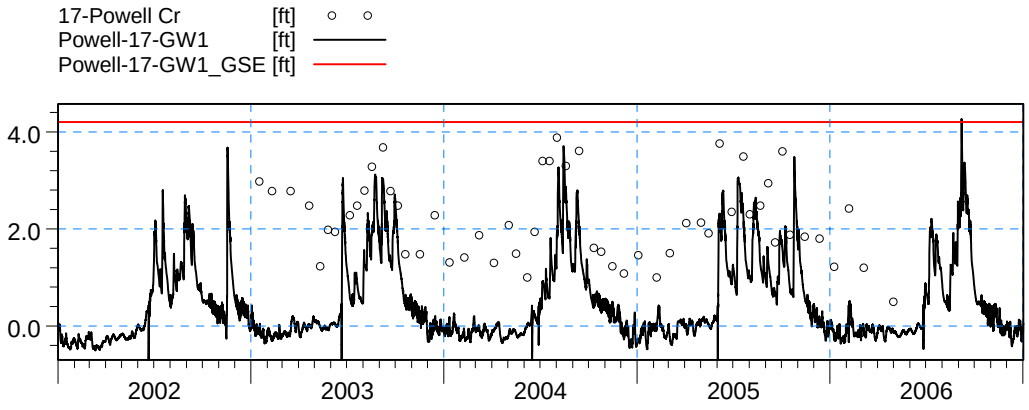
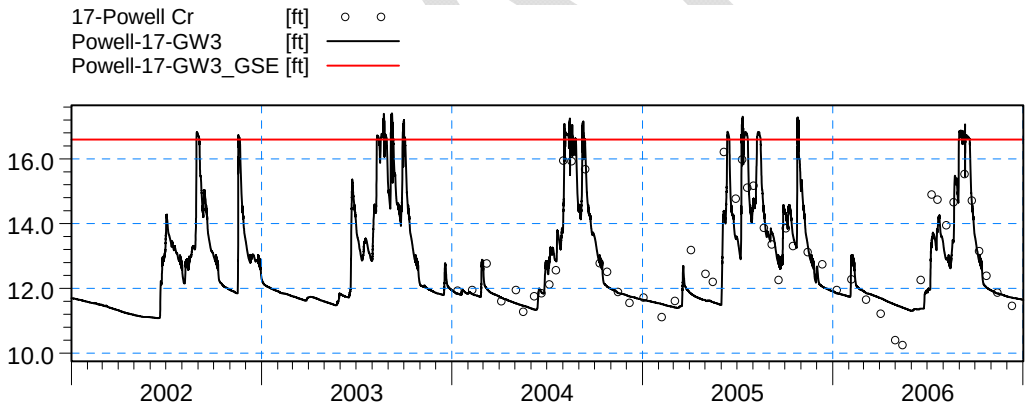


Figure B85. Average performance level at groundwater monitoring wells north of Caloosahatchee River, after the refinement process.

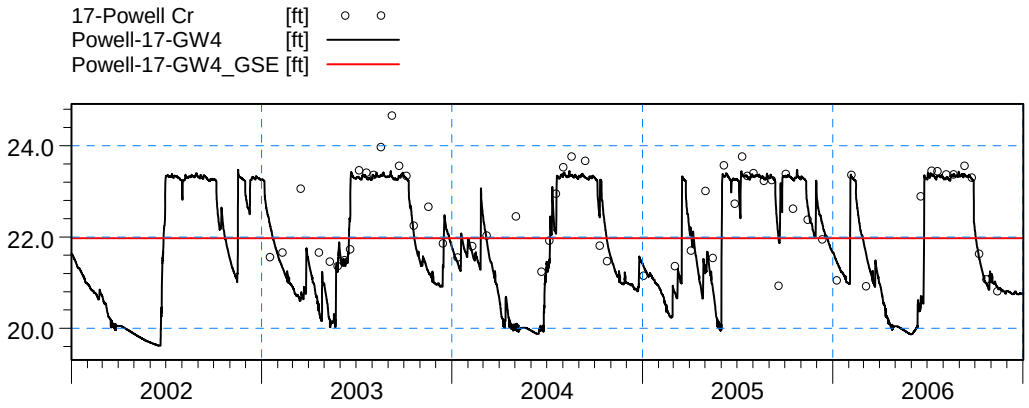


ME=1.58775
MAE=1.58775
RMSE=1.69191
STDres=0.584487
R(Correlation)=0.773349
R2(Nash_Sutcliffe)=-2.97405



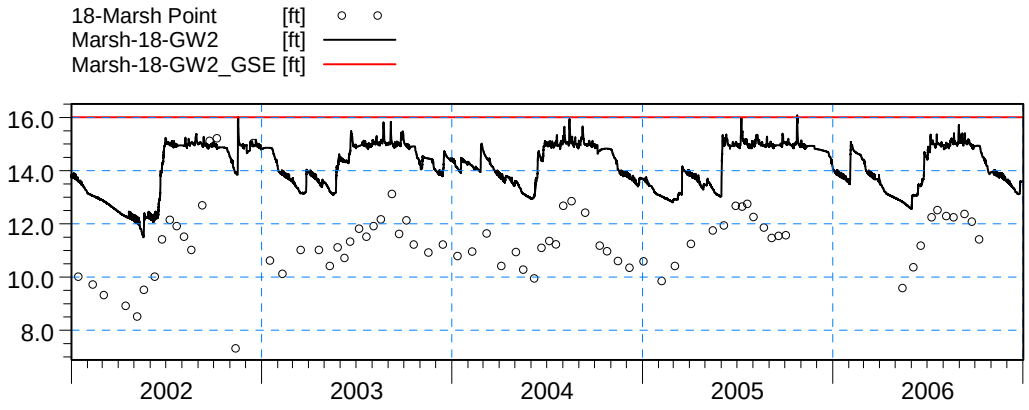
ME=0.109963
MAE=0.583
RMSE=0.749119
STDres=0.741005
R(Correlation)=0.885938
R2(Nash_Sutcliffe)=0.771563

Figure B86. Groundwater elevation at wells 17-GW1 and 17-GW3, after refinement.

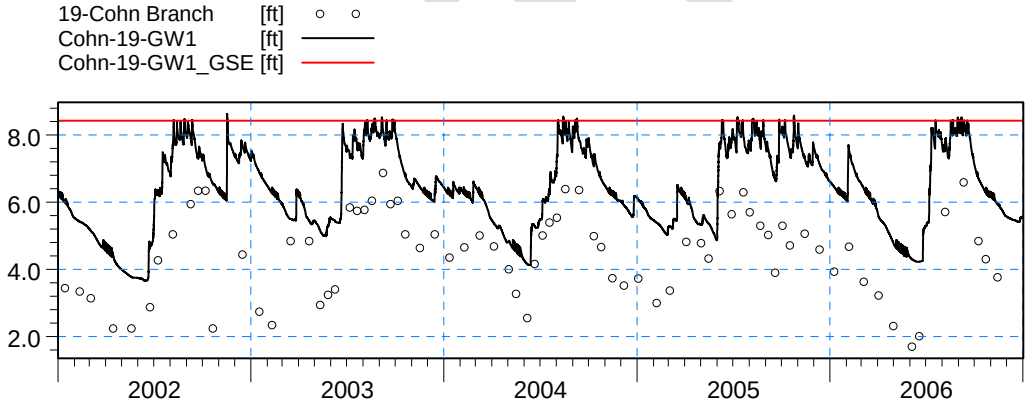


ME=0.263478
MAE=0.498786
RMSE=0.767094
STDres=0.720425
R(Correlation)=0.759533
R2(Nash_Sutcliffe)=0.387091

Figure B87. Groundwater elevation at wells 17-GW4 and 18-GW1, after refinement.

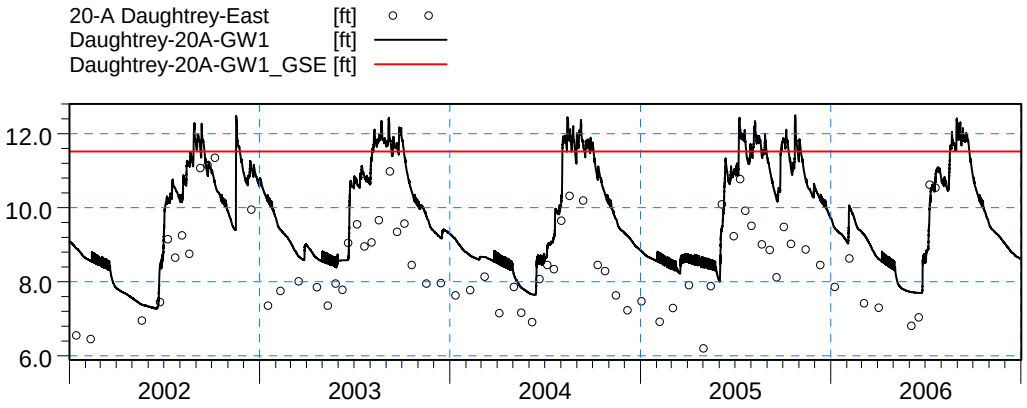


ME=-2.99164
MAE=3.00523
RMSE=3.16045
STDres=1.01907
R(Correlation)=0.660179
R2(Nash_Sutcliffe)=-4.42621

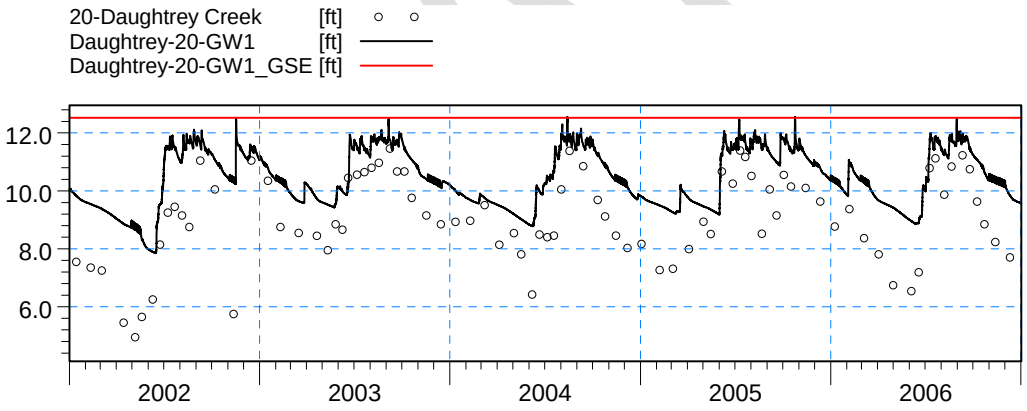


ME=-1.98343
MAE=1.98343
RMSE=2.11289
STDres=0.728228
R(Correlation)=0.828452
R2(Nash_Sutcliffe)=-1.72654

Figure B88. Groundwater elevation at wells 18-GW2 and 19-GW1, after refinement.

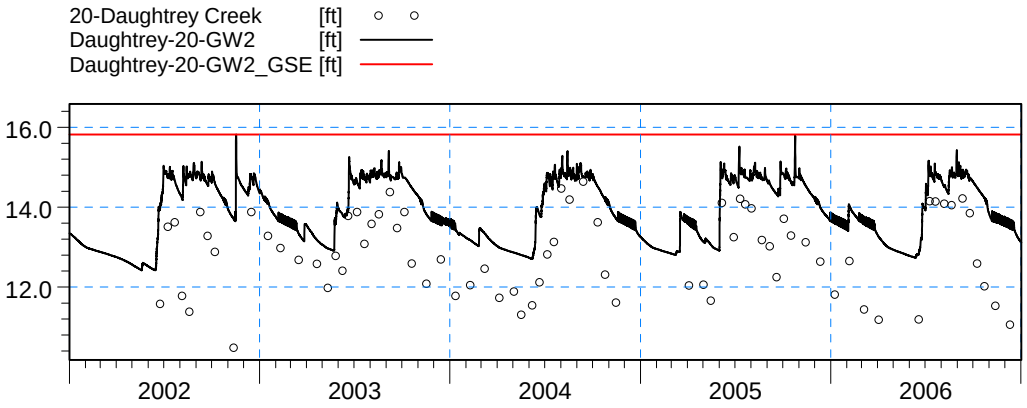


ME=-1.30694
MAE=1.37574
RMSE=1.53304
STDres=0.801309
R(Correlation)=0.800392
R2(Nash_Sutcliffe)=-0.535158

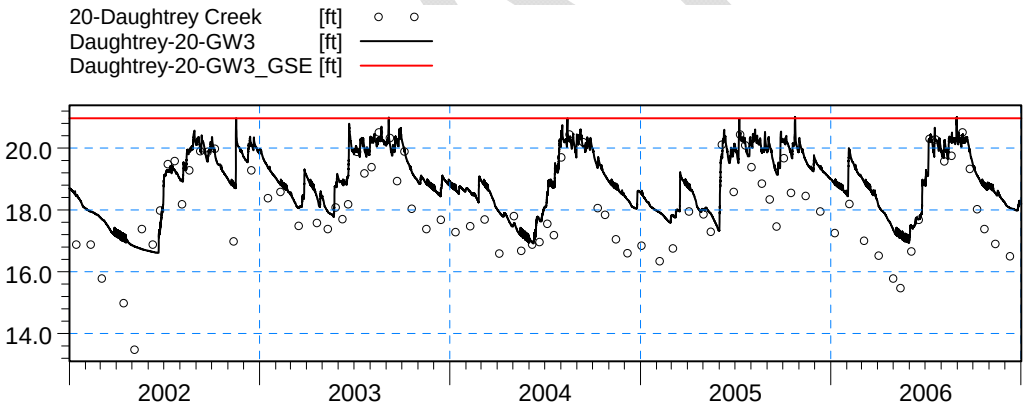


ME=-1.48351
MAE=1.49133
RMSE=1.70245
STDres=0.835183
R(Correlation)=0.860013
R2(Nash_Sutcliffe)=-0.248557

Figure B89. Groundwater elevation at wells 20A-GW1 and 20-GW1, after refinement.

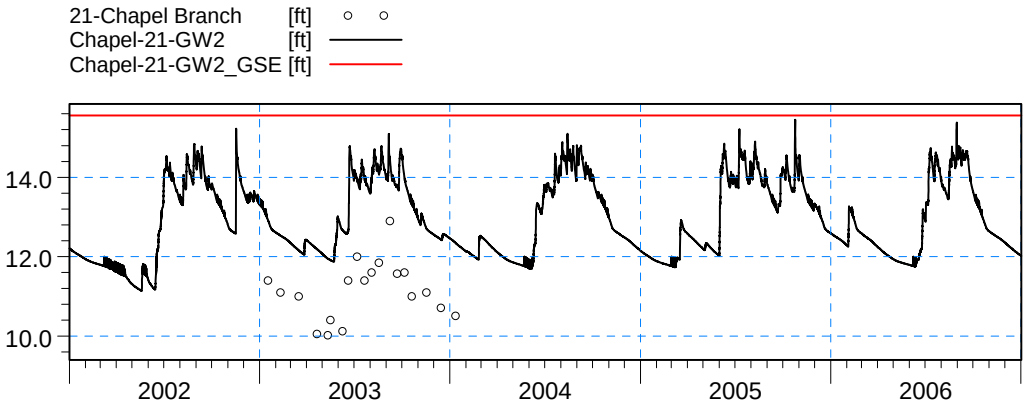


ME=-1.31625
MAE=1.31625
RMSE=1.4688
STDres=0.651806
R(Correlation)=0.774508
R2(Nash_Sutcliffe)=-1.10593

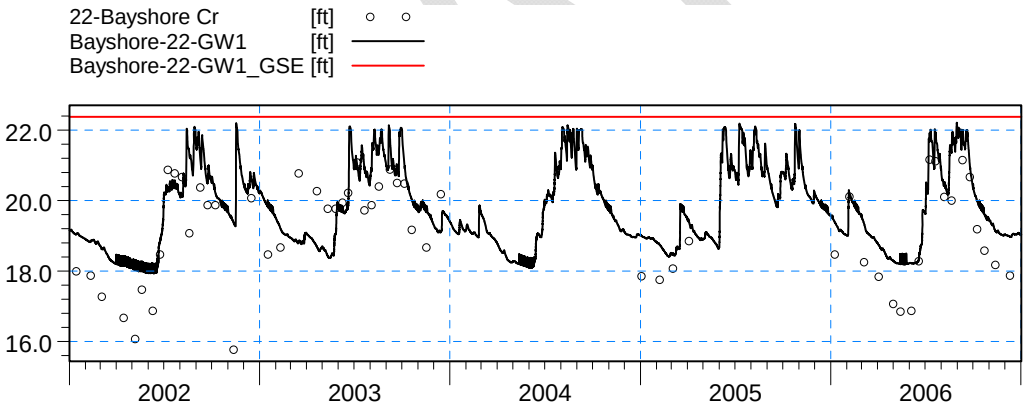


ME=-0.865977
MAE=0.960532
RMSE=1.18126
STDres=0.803404
R(Correlation)=0.838509
R2(Nash_Sutcliffe)=0.327749

Figure B90. Groundwater elevation at wells 20-GW2 and 20-GW3, after refinement.

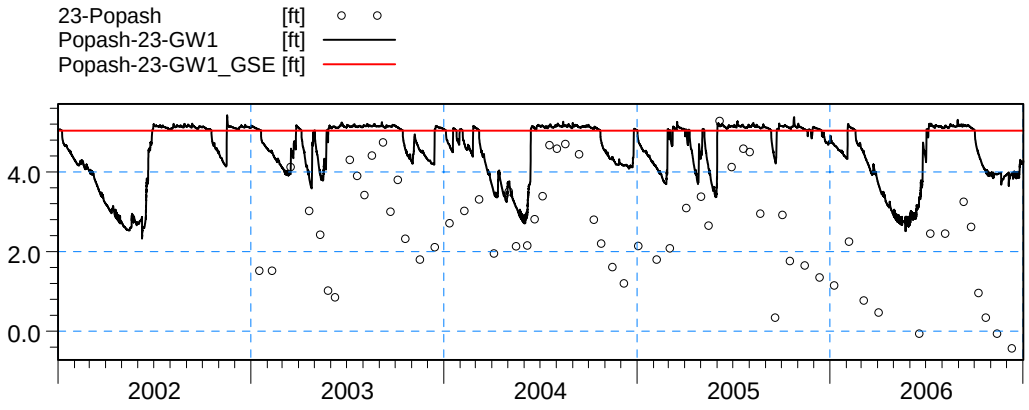


ME=-1.91011
MAE=1.91011
RMSE=1.95764
STDres=0.428773
R(Correlation)=0.851248
R2(Nash_Sutcliffe)=-6.42507

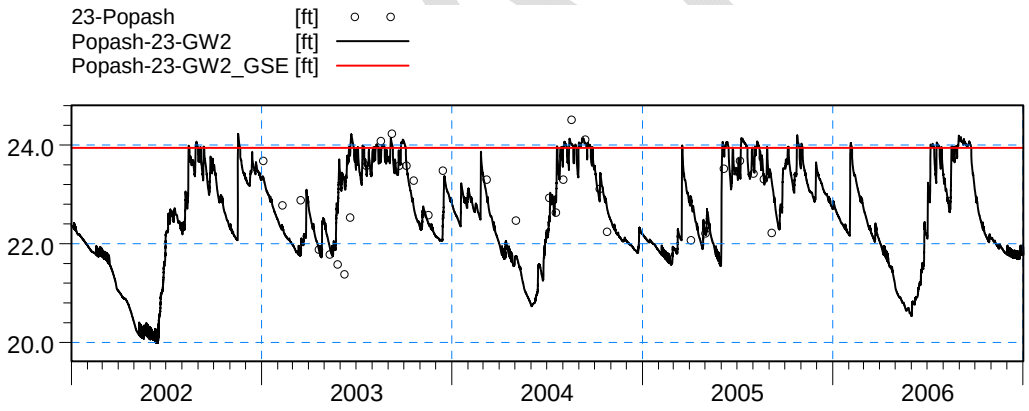


ME=-0.693341
MAE=0.986734
RMSE=1.20682
STDres=0.987767
R(Correlation)=0.742392
R2(Nash_Sutcliffe)=0.32956

Figure B91. Groundwater elevation at wells 21-GW2 and 22-GW1, after refinement.

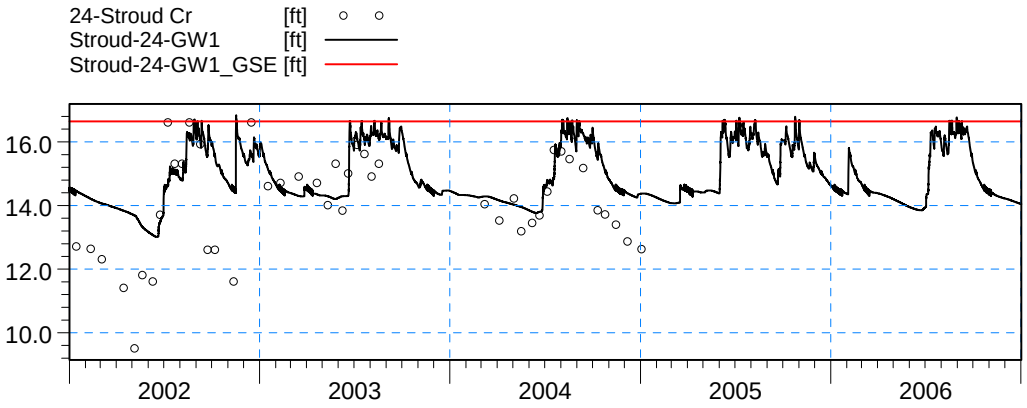


ME=-2.07554
MAE=2.08425
RMSE=2.38496
STDres=1.17481
R(Correlation)=0.51019
R2(Nash_Sutcliffe)=-2.07594

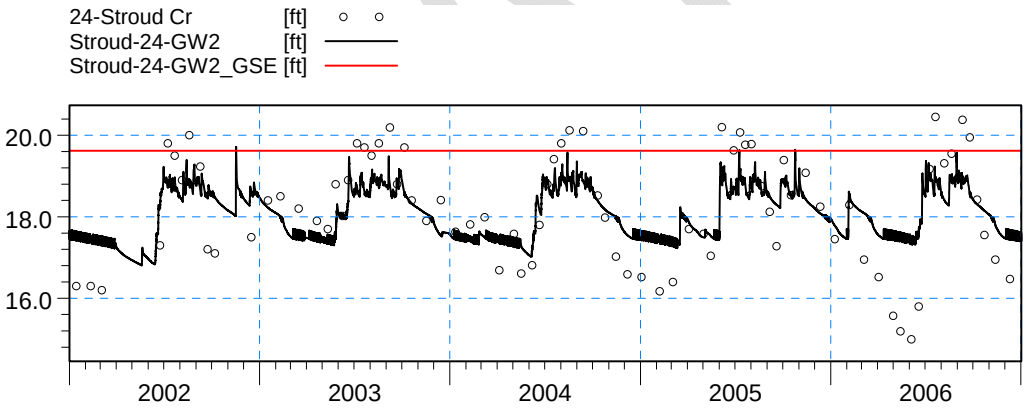


ME=-0.0308459
MAE=0.457588
RMSE=0.620912
STDres=0.620146
R(Correlation)=0.646187
R2(Nash_Sutcliffe)=0.3593

Figure B92. Groundwater elevation at wells 23-GW1 and 23-GW2, after refinement.

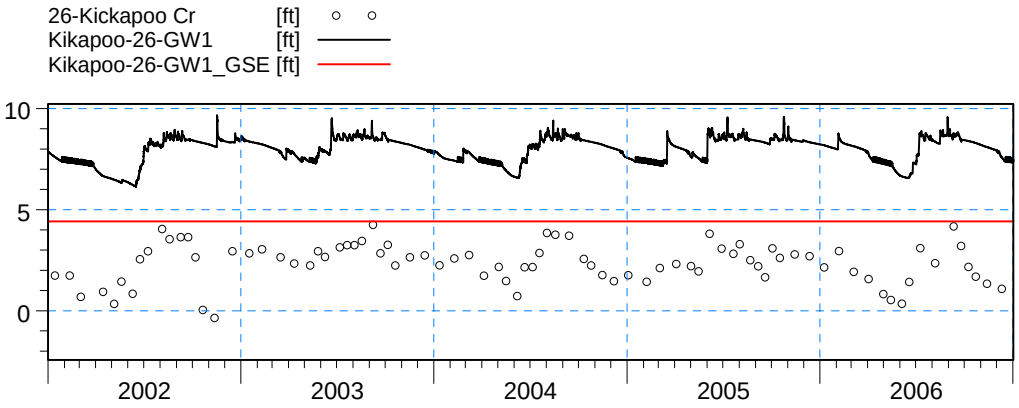


ME=-0.747966
MAE=1.11513
RMSE=1.45498
STDres=1.248
R(Correlation)=0.608686
R2(Nash_Sutcliffe)=0.142304

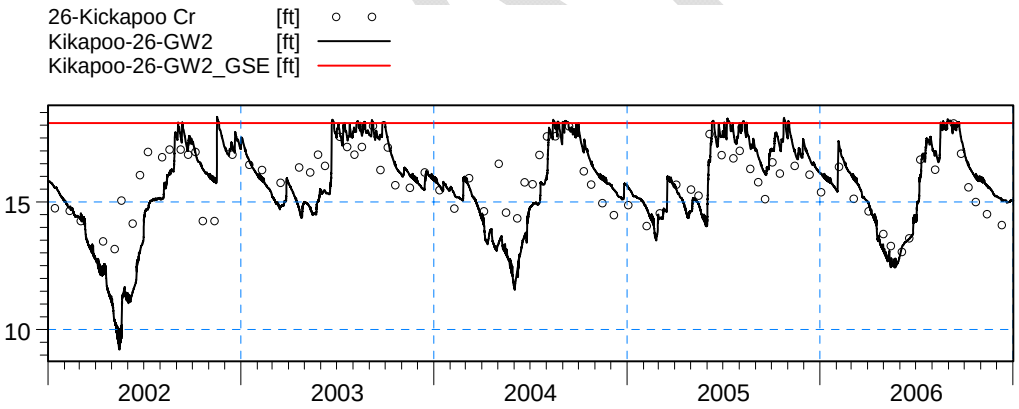


ME=-0.00533193
MAE=0.82558
RMSE=1.01247
STDres=1.01246
R(Correlation)=0.794554
R2(Nash_Sutcliffe)=0.474371

Figure B93. Groundwater elevation at wells 24-GW1 and 24-GW2, after refinement.

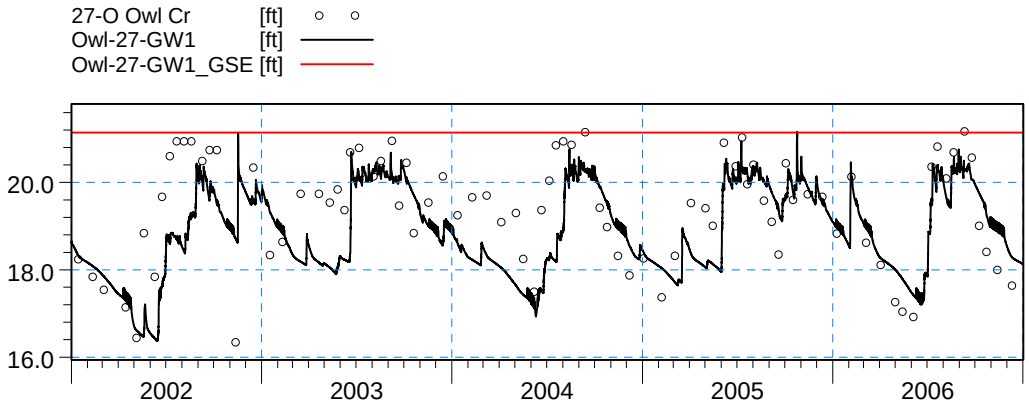


ME=-5.58531
MAE=5.58531
RMSE=5.63219
STDres=0.725187
R(Correlation)=0.686331
R2(Nash_Sutcliffe)=-31.0493

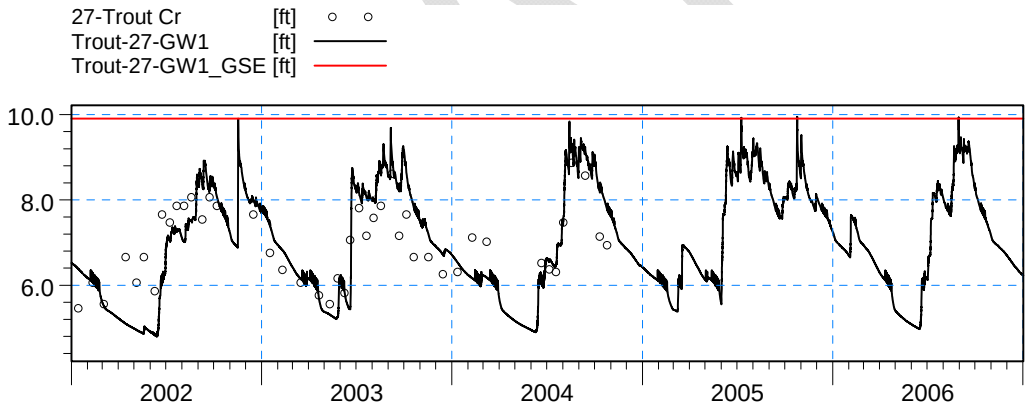


ME=0.152335
MAE=0.928914
RMSE=1.23436
STDres=1.22493
R(Correlation)=0.715037
R2(Nash_Sutcliffe)=0.00272002

Figure B94. Groundwater elevation at wells 26-GW1 and 26-GW2, after refinement.

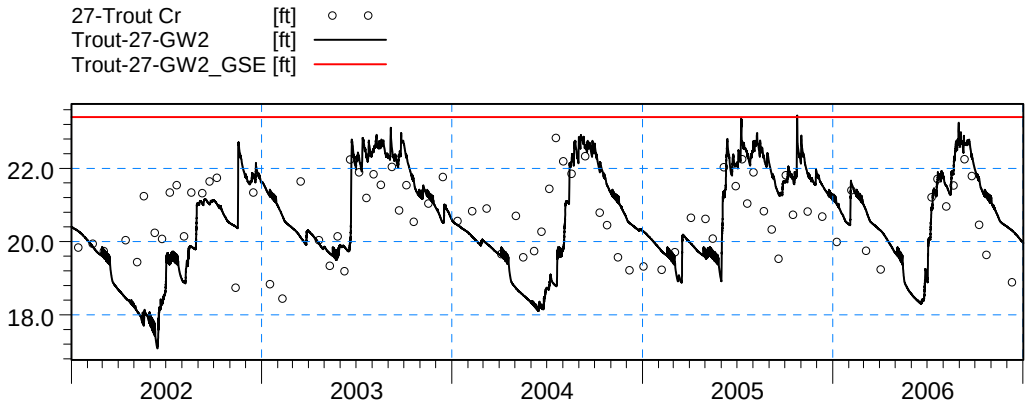


ME=0.445249
MAE=0.903019
RMSE=1.11705
STDres=1.02448
R(Correlation)=0.611945
R2(Nash_Sutcliffe)=0.20865

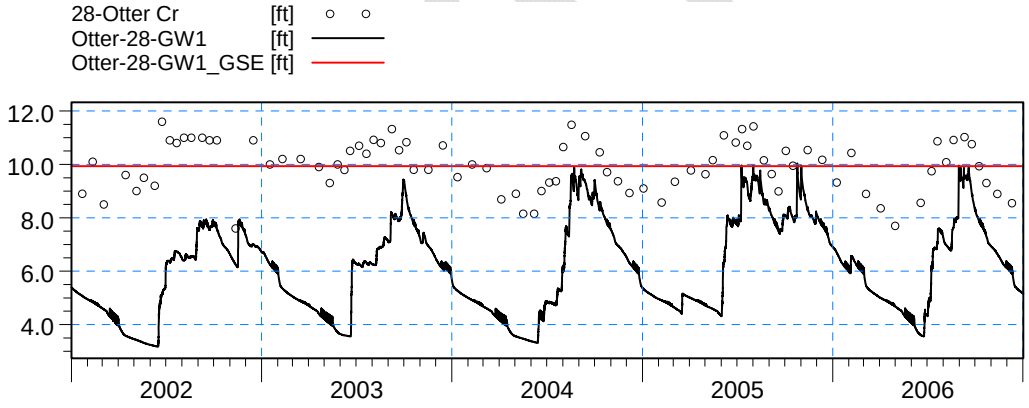


ME=-0.0704249
MAE=0.691801
RMSE=0.86693
STDres=0.864065
R(Correlation)=0.719052
R2(Nash_Sutcliffe)=0.0796882

Figure B95. Groundwater elevation at wells 27O-GW1 and 27-GW1, after refinement.

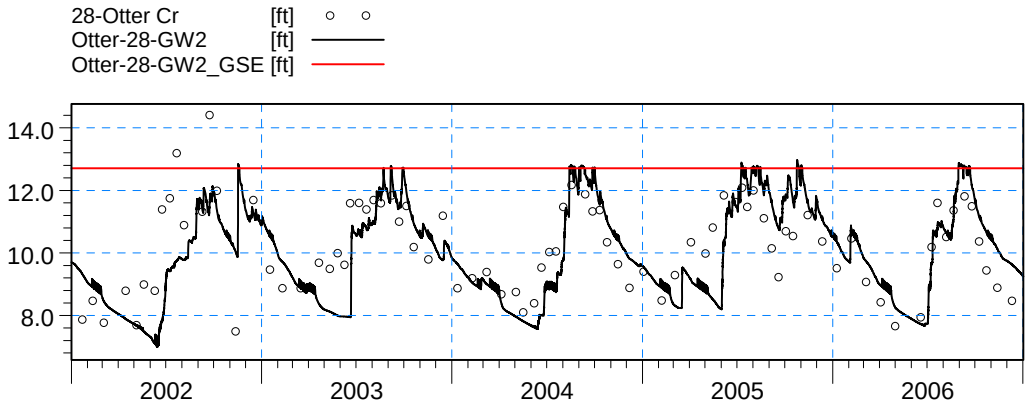


ME=-0.00525769
MAE=1.07722
RMSE=1.32714
STDres=1.32713
R(Correlation)=0.395351
R2(Nash_Sutcliffe)=-0.663459

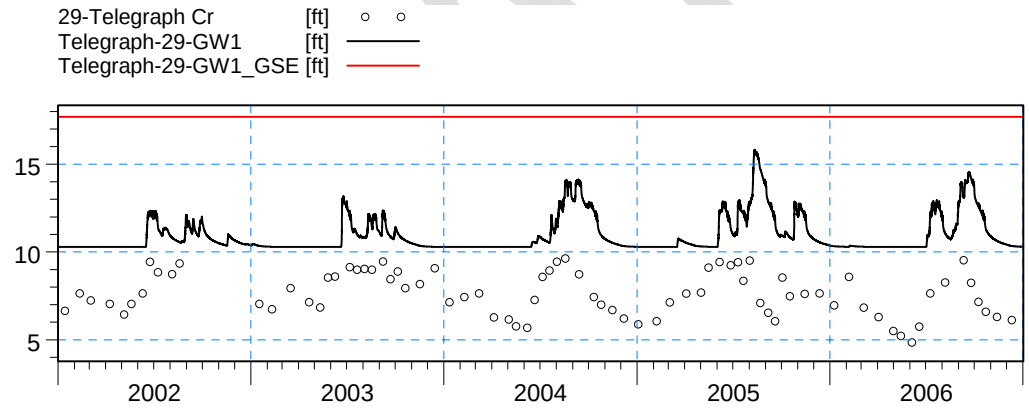


ME=3.67953
MAE=3.67953
RMSE=3.94838
STDres=1.43204
R(Correlation)=0.585478
R2(Nash_Sutcliffe)=-16.9481

Figure B96. Groundwater elevation at wells 27-GW2 and 28-GW1, after refinement.

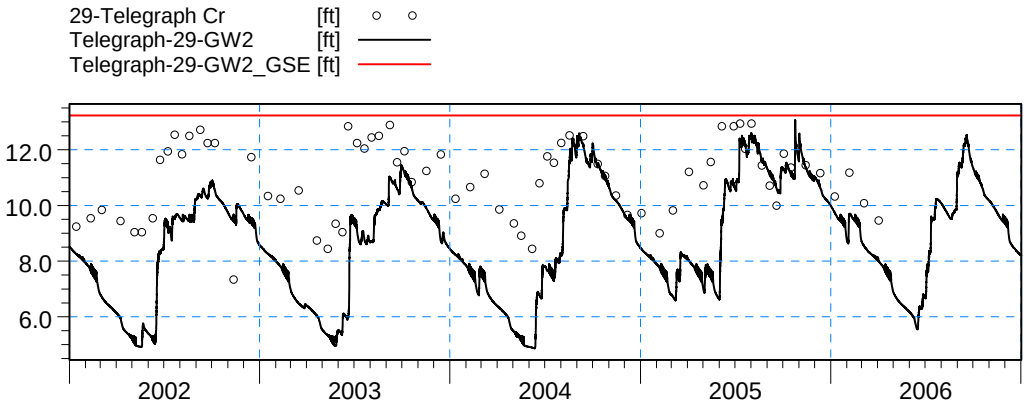


ME=0.135078
MAE=1.00713
RMSE=1.25811
STDres=1.25084
R(Correlation)=0.645052
R2(Nash_Sutcliffe)=0.207105

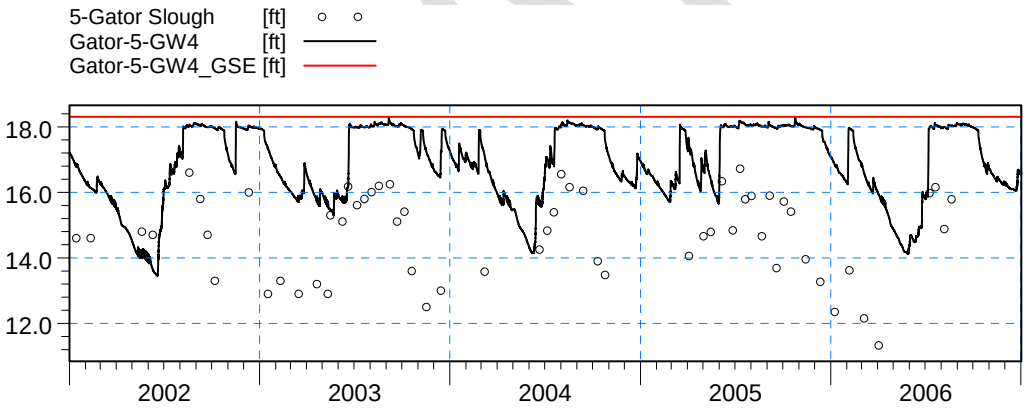


ME=-3.35684
MAE=3.35684
RMSE=3.59469
STDres=1.28586
R(Correlation)=0.400213
R2(Nash_Sutcliffe)=-7.25349

Figure B97. Groundwater elevation at wells 28-GW2 and 29-GW1, after refinement.

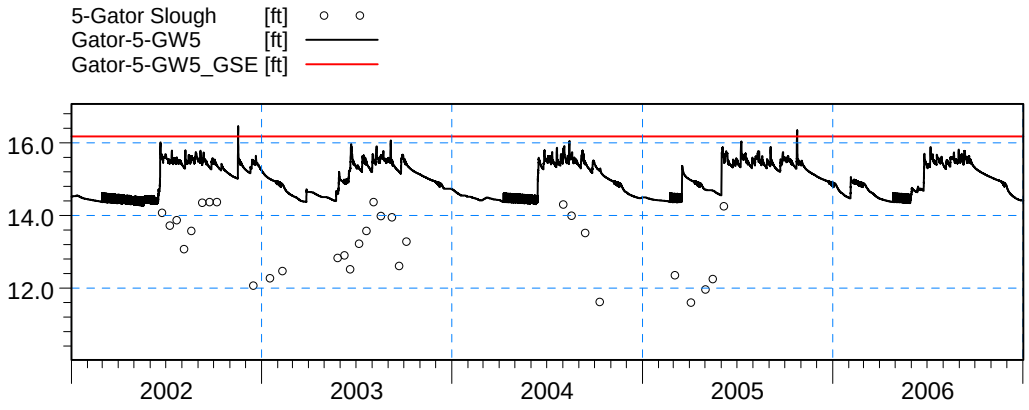


ME=2.12438
MAE=2.25942
RMSE=2.70105
STDres=1.66813
R(Correlation)=0.61182
R2(Nash_Sutcliffe)=-2.95651

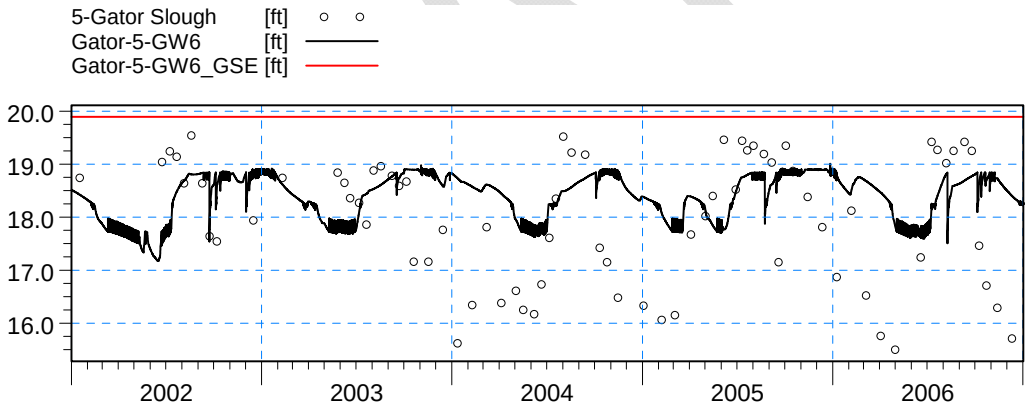


ME=-2.63809
MAE=2.69497
RMSE=2.99001
STDres=1.40736
R(Correlation)=0.339797
R2(Nash_Sutcliffe)=-3.78144

Figure B98. Groundwater elevation at wells 29-GW2 and 5-GW4, after refinement.

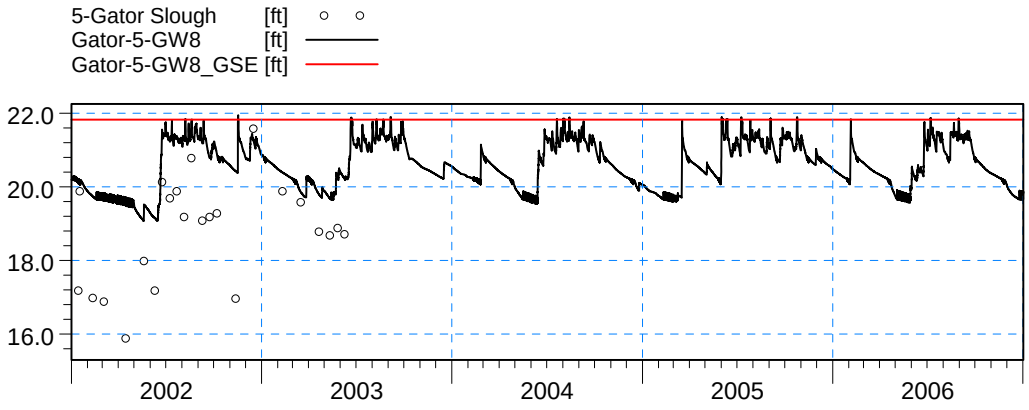


ME=-2.11047
MAE=2.11047
RMSE=2.23349
STDres=0.731026
R(Correlation)=0.667842
R2(Nash_Sutcliffe)=-5.01162

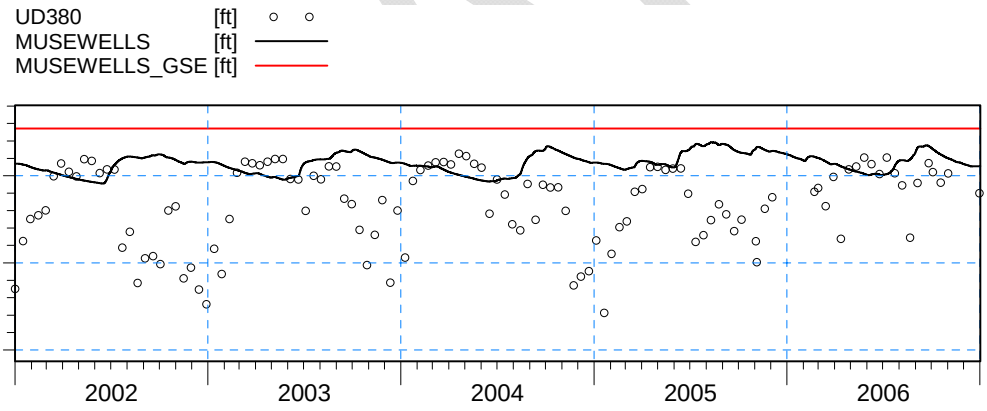


ME=-0.462643
MAE=1.0027
RMSE=1.26482
STDres=1.17717
R(Correlation)=0.174678
R2(Nash_Sutcliffe)=-0.149706

Figure B99. Groundwater elevation at wells 5-GW5 and 5-GW6, after refinement.



ME=-1.72184
MAE=1.74723
RMSE=2.04134
STDres=1.09651
R(Correlation)=0.647348
R2(Nash_Sutcliffe)=-1.06364



ME=-4.74107
MAE=5.29485
RMSE=7.01442
STDres=5.16956
R(Correlation)=-0.313013
R2(Nash_Sutcliffe)=-1.19331

Figure B100. Groundwater elevation at wells 5-GW8 and MUSEWELLS, after refinement.